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THE UNIVERSITY OF ALBERTA

A STUDY OF THE PROFESSIONAL ROLE ORIENTATIONS OF

TEACHERS AND PRINCIPALS AND THEIR RELATION-

SHIP TO BUREAUCRATIC CHARACTERISTICS

OF SCHOOL ORGANIZATIONS

by

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The undersigned certify that they have read, and
recommend to the Faculty of Graduate Studies for accept-
ance, a thesis entitled "A Study of the Professional Role
Orientations of Teachers and Principals and Their Rela-
tionship to Bureaucratic Characteristics of School Organ-
izations" submitted by Norman Robinson in partial fulfil-
ment of the requirements for the degree of Doctor of
Philosophy.

ABSTRACT

The central problem of this study was an investigation of the relationships between the professional role orientations of teachers and principals and the bureaucratic dimensions of school organizations.

In addition, an attempt was made to determine the extent of compatibility and incompatibility existing between the professional role orientations of teachers and principals and the concept of bureaucracy as an ideal organizational form for schools.

An analysis was also made of the relationships between teachers' and principals' professional role orientations and the use of advisory authority in schools.

This study was carried out in a sample of twenty-nine British Columbia schools. Professional scores for teachers and principals were obtained from their responses to the Professional Role Orientation Scale. The School Organizational Inventory measured six bureaucratic dimensions of schools: Scale I (hierarchical authority), Scale II (specialization), Scale III (rules for incumbents), Scale IV (procedural specification), Scale V (impersonality), and Scale VI (technical competence). The use of advisory authority by principals was measured by the Advisory Authority Instrument.

There was no significant overall difference found in

staff professional scores between schools but when the top
and bottom quartiles of staff professional scores were com-
pared a highly significant difference was found.

The theoretical model of bureaucracy underlying the
study was supported. The observed bureaucratic scores for
all schools were positively and significantly related on
Scales I, III, IV and V. Similarly, the observed bureaucratic
scores on Scales II and VI were positively and significantly
related. There were, however, negative and significant corre-
lations between Scales I, III, IV and V and Scales II and VI.

There were significant overall differences between schools
on all six bureaucratic dimensions. It was discovered that
neither staff professional scores nor principals' professional
scores were significantly related to any of the six bureaucratic
dimensions.

Positive and significant relationships were discovered
between teachers' professional scores and the perceived desir-
ability of Scales II, V and VI. Similarly, positive and
significant relationships were found between principals'
professional scores and the perceived desirability of Scales
II and VI; and negative and significant relationships between
principals' professional scores and the perceived desirability
of Scales I, III and IV.

No significant difference was found between schools in
the use of advisory authority by principals.

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CHAPTER I

THE PROBLEM

I.   INTRODUCTION

To-day social life is to an increasing extent domina-
ted by bureaucratic institutions. While bureaucracy was
formerly reserved as a term for government bureaus; to-day,
schools, churches, universities, hospitals, and industries
are organized in the bureaucratic pattern. With the growth
of bureaucratic institutions has come a corresponding in-
crease in the number of specialized professionals employed
in these institutions. In fact, the employment of profes-
sionals has become indispensable to many bureaucratic insti-
tutions. A number of writers have suggested that the intro-
duction of large numbers of professionals into bureaucratic
organizations has resulted in modification of the classical
bureaucratic organizational form.

In this study an attempt was made to determine whether
differences in the degree of professionalism possessed by
teaching staff and principals was related to the degree of
bureaucratization found in school organizations, analysed
in terms of a six-dimensional bureaucratic model.

The study was restricted to an investigation of the
effect of staff professionalism and principals' profession-
alism on observed bureaucratization in school organizations
with the effect of school size controlled. It is recognized

that there are extra-organizational and other intra-organiz-
ational factors which also influence the degree and kind of
bureaucratization found in school organizations. This study
was delimited, however, to a study of the effect on bureau-
cratization of only two intra-organizational variables--
staff professionalism and principals' professionalism--
with the effect of school size partialled out.

II.   THE IMPORTANCE OF THE STUDY

Professions and bureaucracies are ideologies in the
sense that they provide norms of behavior which guide the
conduct of members in relevant situations. If attention is
centered on idealized norms rather than on actual behavior,
a number of inconsistencies between the two normative
orientations of bureaucracy and professionalism becomes
apparent. To the extent that the professional norms tend
to be internalized, the conflict is one between the pro-
fessional's self-concept of role and the actual role he is
obliged to play in the organization.

Etzioni (1, p. 75) suggests that it is the introduction
of knowledge into an organization which creates a strain on
both the professionals who possess the knowledge and on the
organizational structure and operation. Etzioni states:

> Administration assumes a power hierarchy. Without
> a clear ordering of higher and lower in rank, in
> which the higher in rank have more power than the
> lower ones and hence can control and co-ordinate

> the latter's activities, the basic principle of
> administration is violated; the organization
> ceases to be a co-ordinated tool. However,
> knowledge is largely an individual propery; un-
> like other organizational means, it cannot be
> transferred from one person to another by decree.
> Creativity is basically individual and can only
> to a very limited degree be ordered and co-ordi-
> nated by the superior rank.... Only if immune
> from ordinary social pressures and free to inno-
> vate, to experiment, to take risks without the
> usual social repercussions of failure, can a
> professional carry out his work effectively.
>
> It is this highly individualized principle which
> is diametrically opposed to the very essence of
> the organizational principle of control and co-
> ordination by superiors, that is, the principle
> of administrative authority. In other words, the
> ultimate justification for a professional act is that
> it is, to the best of the professional's knowledge,
> the right act.... The ultimate justification of
> an administrative act, however, is that it is in
> line with the organization's rules and regulations,
> and that it has been approved--directly or by
> implication--by a superior rank (1, pp. 76-77).

In principle then, bureaucratic and professional norms tend
to be incompatible and many writers feel that the profes-
sional in a bureaucratic situation is at best an anomaly
(2, p. 458). It has been noticed that many professionals
at work in a bureaucratic organization experience strain and
tension in living up to competing professional and organiz-
ational demands. In view of the incompatibility between
professional and bureaucratic norms and the tensions which
arise in practice when professionals are introduced into
bureaucratic environments, what indications are there of the
ways in which these tensions are likely to be resolved or

reduced? Two major patterns of accommodation and adaptation have been identified: (1) professionals develop role conepts which are not incompatible with the demands of the bureaucratic organizations; and (2) professionals affect the bureaucratic form of organization and influence modifications in its structure in a direction compatible with their desires. In other words, professionals affect, as well as are affected by, the bureaucratic form of organization. Both of these forms of accommodation and adaptation are important, but in this study the central focus was on the modifying influence of professionalism on the bureaucratic form of organization, as these two phenomena apply to schools.

The impact of professionalism on organizations has been examined in theoretical terms by Etzioni (1, pp. 77-90). In his analysis, Etzioni distinguishes four types of organizations which use professional skills in their endeavours. They are: (1) non-professional organizations, (2) service organizations, (3) "full-fledged" professional organizations, and (4) semi-professional organizations.

Professionals in non-professional organizations. The large business corporation is the most common kind of non-professional organization. It is engaged in the production of goods or the rendering of certain services and its primary aim is to make a profit for its shareholders. Etzioni indicates that in this kind of organization the way that admini-

strative and professional authority is combined is usually

referred to as "line and staff" (1, p. 80).

> The managers whose authority is administrative
> direct the major goal activities; the profess-
> ionals deal with knowledge as a means, and with
> the knowledge aspect of other means. They are in
> a subordinate position to the managers. Thus in
> cases of conflict between the two criteria for
> decision-making, the organization power structure
> is slanted in favor of the administrative author-
> ity. However, professional subordinates are treat-
> ed different from regular subordinates; they are
> not treated as are lower ranks in a line structure,
> but as "staff", a term which designates positions
> outside the regular chain of command or "line" and
> implies a certain amount of autonomy (1, p. 80).

Service organizations for professionals. In the

service organization, Etzioni (1, pp.89-90) indicates that

professionals are provided with the instruments, facilities,

and auxiliary staff required for their work. The profession-

als are not, however, employed by the organization nor are

they subordinate to its administrators. A common example

of this type of organization is a research organization

attached to a university. It has no professional staff of

its own and the professionals, usually faculty members of

the university, merely make use of the human and material

resources offered by the research organization. This

type of arrangement is very different from that of a research

organization which employs professionals who are under the

administrative control of the organization's head.

The "full-fledged" professional organizations. In

Etzioni's typology, the "full-fledged" professional organ-
izations are characterized not only by the goals they
pursue, but also by the high proportion of professionals
on their staff (at least 50%). These professional organ-
izations have unique authority relationships between profes-
sionals and administrators in that the professionals control
the major goal activities of the organization. Typical of
this type of organization are some universities, larger
hospitals, and doctor-owned medical clinics. In the "full-
fleged" professional organizations administrators are in
charge of secondary activities, that is, they administer
means to the major activity carried out by professionals
(1, p. 81). Etzioni notes:

> Administrators offer advice about the economic
> and organizational implications of various
> activities planned by professionals. The final
> decision is, functionally speaking, in the hands
> of the various professionals and their decision-
> making bodies, such as committees and boards.
> The professor decides what research he is going
> to undertake and to a large degree what he is
> going to teach; the physician determines the
> treatment to be given to his patient (1, p.81).

In the "full-fledged" professional organization,
Etzioni indicates that there are really two lines of auth-
ority. First of all, there is the "line authority" from
the administrative head to those in the organization in
charge of means activities; for example, custodians, campus
police, hospital kitchen help and secretaries (1, p. 86).

This authority is structured in the classical hierarchical fashion. On the other hand, the professionals in the organization are outside the regular hierarchical line of command. They are free from any great direct control in the discharge of their major institutional functions.

The semi-professional organizations. The semi-professional organizations, as described by Etzioni (1, pp. 87-89) differ from the "full-fledged" professional organizations in that they employ professionals whose training is shorter (less than five years) and who are less concerned with questions of life and death and whose work more often involves communicating knowledge rather than creating it or applying it. In this organization the professional has less autonomy than in the "full-fledged" professional organization. As Etzioni points out:

> Nurses are directly observed and corrected by
> doctors and superior nurses. Such supervision
> is not charactersitic of the mechanisms of con-
> trol found in the "full-fledged" professions.
> Inspectors are not widely used to drop in on a
> professor's classroom to check his teaching,
> especially not in the better universities. No
> doctor will be asked to report to an administra-
> tive superior on why he carried out his medical
> duties in the way he did or stand corrected by
> him. External examinations used in schools to
> check on teachers as well as students are very
> rare in universities (1, p.88).

The effect of supervision imposed on personnel employed in semi-professional organizations is usually manifested in two main kinds of reactions to this supervision. First of all,

a certain amount of de-professionalization may occur in some personnel and the individuals being supervised will become more "superior-conscious" and will adopt more compliant attitudes. On the other hand, many semi-professional subordinates resent the control of a supervisor and view themselves as "full-fledged" professionals and feel they should be given more discretion and freedom in their work environment. In many cases this freedom is granted.

In this section, a review has been undertaken of Etzioni's theoretical analysis of administrative and professional authority relationships. The analysis provided by Etzioni has indicated that professionalism does have an impact on organizational structure. The degree and type of influence depends upon the major goal activities of the organization and the degree of professionalism possessed by the organizational members.

Professionalism and bureaucracy in schools. There is reason to believe that school organizations to-day are being influenced by both the forces of bureaucracy and the forces of professionalism. Bureaucratic characteristics are observable in most school organizations to-day. At the same time there is a growing awareness that teachers and the teaching profession may be emerging from what many have considered to be a semi-professional state. Increasing recognition is being given to the fact that teaching is a unique, essen-

tial social service based on particular competencies. This in turn has resulted in the requirement of longer periods of specialized training resulting in the improvement of the professional qualifications of teachers. In addition, teachers are becoming more active in affairs concerning curriculum and professional education and have formed, in many cases, tight-knit professional associations. If professionalization can be viewed as a drive for status and an escape from lay control, positive steps towards this end have become apparent in recent years. The growth of teacher professionalization thus challenges the traditional ideology of lay control and the hierarchical control of administrators. In this study an attempt was made to determine the extent to which teachers have developed professional role orientations and to discover how these were distributed throughout the school systems under study. An attempt was also made to discover which bureaucratic features of schools were compatible with professional role orientations of teachers and which were not. An investigation was also undertaken to determine whether the professional role orientations possessed by teachers and principals were related to the degree of bureaucratization found in schools along six bureaucratic dimensions. Finally, the degree of professionalism possessed by staffs and principals was related to certain aspects of teacher-principal relationships.

The trends towards increased bureaucratization of school

organizations and towards increased professionalization of teachers pose problems for administrators. The hope of this study is that it may indicate which bureaucratic features of schools may be emphasized with little conflict with the professional orientations of teachers and which should be de-emphasized to provide more professional "breathing room" for teachers. From this knowledge a model of school organizations may be conceptualized which reconciles the best of bureaucracy and professionalism.

III. STATEMENT OF THE PROBLEM

The central problem of this study was an investigation of the relationships existing between the professional orientations of teachers and principals and the bureaucratic dimensions of school organizations.

More specifically, do schools differ in the degree of professionalism possessed by staff and principal and if this is so, how is this related to the bureaucratic organization found in different schools? That is, do schools which are highly professional have a different bureaucratic structure than schools which are low in professionalism?

In addition an attempt was made to determine the extent of compatibility and incompatibility existing between the professional orientations of teachers and principals and the concept of bureaucracy as an ideal organizational form for schools.

Subsidiary to these two central problems but flowing from them theoretically was the question of whether principals possess professional orientations similar to those held by teachers. If principals hold the same normative orientations as do their teachers this fact should be reflected in their authority relationships with teachers. One important aspect of teacher professionalism to be determined was the question to what extent teachers possess an "autonomy norm." If principals also hold to this norm this fact should reflect itself in a type of authority relationship between principals and teachers which respects this norm. For this reason, an investigation of principal-teacher authority relationships was made. Specifically, an attempt was made to determine whether authority relationships differ between schools which are highly professional, that is, where both the teachers and the principal are highly oriented to the teaching profession and its ideals and between those schools which are low in professionalism, that is, where the principal and teachers are low in their orientation to the teaching profession and its ideals.

IV. OVERVIEW OF THE REPORT

In the first chapter the problem was stated and arguments were advanced to suggest the significance of the study. Chapter II is devoted to an analysis of the problem and a statement of the sub-problems and hypotheses flowing out of

the analysis. Chapter III outlines the research methodology
employed in the study. Chapters IV, V, VI, and VII are de-
voted to an analysis and discussion of the results of the
study; and Chapter VIII contains a summary of findings with
a statement of conclusions and implications for further re-
search.

REFERENCES FOR CHAPTER I

(1)   Etzioni, A., <u>Modern Organizations</u>, (Englewood Cliffs,
       N.J., Prentice-Hall, Inc., 1964).

(2)   Hall, O., "Some Problems in the Provision of Medical
       Services," <u>Canadian Journal of Economics and
       Political Science</u>, 20 (1954), pp. 452-458.

CHAPTER II

ANALYSIS OF THE PROBLEM

I. BUREAUCRATIC AND PROFESSIONAL PRINCIPLES

Incompatibility of Professional Orientations with Bureaucratic
Organizational Structure in Organizations Other than Schools.

The growth of bureaucracy in North American society is
one of the fundamental developments of this century. With the
growth of large scale organizations during this past sixty
years, society has become increasingly what Drucker (14, p.
358) has termed an "employee society." It is a hierarchical
system in which one is related to other people through one's
relationship to a strictly impersonal objective thing called
"the organization."

The influence of bureaucracy is discernible in contem-
porary literature. The plot of many novels analysed by Fried-
sham (15) centers around the dilemma posed to the employee,
that he ought to be able to afford the luxury of his own in-
tegrity except for the fact that he finds himself in a situa-
tion where bureaucracy increasingly sets the conditions of his
behavior. The conflict is essentially one between self-in-
tegrity (or professional integrity) and the practical require-
ments of existence (as an employee) in a bureaucracy. In the
romantic solution, the hero rebels against the bureaucracy;
in the tragic, he succumbs to it.

With the growth of large scale bureaucratic organizations has come a corresponding increase in the number of professional personnel working in these organizations. The number of professionals in independent practice has been increasing at a slower rate than the number of professionals employed in organizations. To-day in Canada less than one-quarter of professional persons are self-employed, independent practitioners (13). Professional work is thus being carried out increasingly in large, complex organizations which are becoming increasingly bureaucratized.

The problems of conflict between the administrative requirements of the organization and professional self-concepts is not new. Chapin (10) recognized the problem thirty years ago but this conflict is only now receiving greater consideration because of the greater numbers of professionals being employed in large organizations.

Reissman (30, pp. 305-310), in an early study, identified four types of role conceptions held by personnel working in a government agency, depending upon the stress given to professional and bureaucratic roles. The "functional bureaucrat" sought recognition from his professional group, rather than from the organization in which he worked. He considered the quality of work more important than his ability to follow bureaucratic procedures. The "specialist bureaucrat" was procedurally conservative and identified primarily with those

with whom he worked. The "service bureaucrat" was oriented

to the bureaucratic means but also sought recognition from

professional groups outside the bureaucracy which supported

his professional ends. The "job bureaucrat" used profes-

sional skills as his entrance requirement into the position

but then sought organizational recognition and material re-

wards from his job. He aimed to be competent but accepted

completely the organization and its norms.

Ben-David (2, pp. 255-273) has developed a typology of

medical roles by studying physicians attitudes in an insti-

tution which was supported by insurance payments. As his

criteria, he used physicians' attitudes towards good patient

relations and towards scientific progress. He found that

there were two distinct doctor groups. First of all, there

were the "service-oriented" doctors whose primary loyalty

was to a defined circle of patients. Secondly, there were

the "science-oriented" doctors whose primary interest and

source satisfaction came from the scientific nature of their

work. In comparing these two groups, Ben-David noted that

the "science-oriented" physicians tried to dominate the pa-

tient more than did the "service-oriented" physicians, and

they also sought more external status. The significance of

the typology is that it begins to differentiate between dif-

ferent types of professional personnel in terms of the speci-

fic reference group to which they are oriented. It seems

particularly significant to differentiate professionals who are primarily oriented to their clients from others oriented to their field of knowledge or to their colleagues.

The incongruity between the professional role of the physician in the military and the bureaucracy in which he operates has been examined by McEwan (25, pp. 208-224). He found that the professional's self-concept as an individual capable of critical ability and originality of thought could only be superficially followed in the structure of a military organization. There was a noticeable incongruity between the professional and military roles. McEwan felt that the bureaucratic principles on which the military was organized and the subordinate-superordinate relationships that existed were incompatible with the professional's need for creative thinking and the equality feelings that prevail among professionals.

Brown (7, pp. 259-269), in her study of professional employees of a government laboratory, found that professionals had some interests and values which conflicted with bureaucratic procedures. Persons concerned with research seemed to hold these most strongly. Many of the engineers in testing and development resisted adapting to large scale bureaucratic organization even though they recognized the need for standardized procedures more than the research engineers. Even among those who did accept, in general, the need for bureaucratic procedures there was evidence of some resistance as

shown through attacks on the Civil Service System, managerial policies, or committee organizations. Some individuals resisted the organization by identifying with their professional colleagues outside the laboratory. This served to insulate them from internal friction as well as to provide them with a strong reference group.

Caplow and McGee in their study of universities discovered a conflict between the professional scholar orientation and an orientation to the university organization:

> To-day, a scholar's orientation to his institution
> is apt to disorient him to his discipline and to
> affect his professional prestige unfavorably. Con-
> versely, an orientation to his discipline will dis-
> orient him to his institution, which he will regard
> as a temporary shelter where he can pursue his career
> as a member of the discipline (9, p. 85).

Corwin (11, pp. 59-96) recently investigated the effects on nurses of increased professionalization and increased bureaucratization. He holds that recent efforts to discard the "dirty" work of nursing represents one aspect of this occupation's drive for status. Nursing is also becoming increasingly bureaucratized. The occupation has become part of a large scale administrative routine regulated by central offices. The nurse is increasingly dependent on hospital authorities for jobs and promotions as the occupation has become increasingly subordinate to hospital officers. The hospital nurse has become in fact a hospital employee. Consequently,

one of the basic conflicts in nursing to-day is a product of the fact that while nurses are supposed to be client oriented, they are often rewarded for skills such as maintenance of charts and records and many other activities which do not involve patient contact. Corwin found in comparing nurses who had a nursing degree and a longer period of training to those nurses with only a diploma and a shorter period of training, that the degree nurses had decidedly less bureaucratic role concepts than did the diploma nurses. He found also that the diploma nurses were much better adjusted to the bureaucratic situation than the degree nurses.

All of the above studies suggest that life in a bureaucratic structure is likely to put strains on the professional's self-concept of role. The indoctrination of the professional during his training often seems inconsistent with the role he is supposed to play in the organization. Consequently, there is likely to be an uneasy tension existing between administrative authorities and professional specialists which must be taken care of either through organizational adaptation or individual accommodation.

Incompatibility of Professional Orientations with Bureaucratic Organizational Structure in School Organizations

There is reason to believe that the problems encountered by professionals in other bureaucratic organizations are beginning to manifest themselves in school organizations. On

the one hand, schools and school systems are growing more com-
plex increasing the problem of internal co-ordination. On
the other hand, teachers are developing greater professional
role concepts, which represent in part, an attempt by the occu-
pation to gain more autonomy in its work.

Several recent studies have examined the problem in ed-
ucation of the conflict between professional role orienta-
tions and bureaucratic organizational demands. Gross (18, pp.
258-262) found these forces at work in his study of school
superintendents. Seventy-one per cent of the superintendents
in his study reported that school boards or other lay groups
placed pressures on them to make personnel decisions on the
basis of criteria other than merit. In such cases where a
person's loyalty to the employer and his professional integ-
rity are both at stake, the professional and bureaucratic
roles are clearly at odds. When it came to a choice, eighty-
five per cent of the superintendents did not conform to the
expectation of the group demanding preferential treatment for
candidates and can be said to have resolved the dilemma by
adhering to the "professional" expectation of basing their
personnel decisions solely on the criterion of merit. Ten
per cent of the superintendents capitulated to the pressures
placed on them and the general attitude of this group is well-
expressed in the words of one of the superintendents who said,
"It's not my school system; it's theirs. That's why I give

them what they want." A final five per cent indicated that they attempted to arrange a compromise between the "professional" and "unprofessional" courses of action.

Supervision of classroom instruction has come to be defined as one of the most important activities of the school principal and yet the principal may, in fact, be violating the professional autonomy of the teacher by his act of supervising. Anne Trask (34) recently examined the apparent conflict between organizational demands for supervision and professional autonomy needs of teachers in schools. She holds that professionals are committed to individual autonomy. That is, they claim the right to know what their clients' interests are and what best serves these interests, without direction or interference from fellow practitioners or, if they are employed by an organization, from superordinates. This commitment to autonomy appears to stand in direct contradiction to the bureaucratic requirement of hierarchical authority, characteristic of most large-scale organizations, especially as manifested in the supervision of a subordinate's performance. Since the responsibility for supervising teachers within a school is usually delegated to the principal, he is the person confronted with the problem of reconciling these conflicting demands (33). Trask's study dealt primarily with the principal's attempts to deal with this situation but one subsidiary finding appears to be particularly significant for this study. Prin-

cipals were asked to indicate their teachers' attitudes to-
wards supervision. Of the forty-five principals answering,
twenty perceived their teachers to be negative in attitude
toward supervision, twenty-one perceived ambivalence, and
only four felt that teachers were positively oriented to-
wards supervision. These findings support the assumption
that a norm of professional autonomy among some teachers is
present.

Several other studies have indicated the importance of
classroom autonomy to the teacher. Scully (31), in an earl-
ier study, reported dissatisfaction among teachers from atti-
tudes or actions of principals which threatened the indivi-
dual teacher's social, professional, or economic security.
On the other hand, Scully found that the most frequently men-
tioned contributor to satisfaction was that teachers were
permitted freedom from interference. Teachers stressed also
the principal's availability and willingness to co-operate
and his tendency to regard teachers as fellow workers rather
than as subordinates.

Bridges (6) investigated teacher participation in de-
cision-making in schools. He sought: (1) to define teacher
participation in decision-making in operational terms; (2)
to study the personal and situational factors governing the
administrator's tendency to provide for participation; and
(3) to examine the effects of participation and attitude

toward the administration as held by teachers with high and low needs for independence. Despite the fact that teachers preferred principals who involved teachers in decision-making, those individuals with a high need for independence expressed less favorable attitudes towards their principals than did those teachers with a low need for independence when principal support for the teacher and participation were held constant. Bridges concluded that teachers with a high need for autonomy viewed the principal as an authority figure capable of thwarting their opportunities to achieve the level of autonomy which they desired in their work. No analysis was made in this study as to the reasons why teachers had differential needs for independence but these might be related to teachers' professional role concepts. It may be that a high need for independence is associated with a high professional role orientation and a low need for independence is associated with a low professional role orientation.

Corwin (12) recently investigated staff conflict in schools and found teacher professionalism to be a militant process which contributes to organizational conflict. He found that the two schools in his study with the highest level of professional orientation had a gross rate of conflict that was higher than the mean for all schools. Furthermore, there was a significant rank order correlation between the mean professional scores of the schools and their

gross rates of conflict, rates of intense conflict, and the rates of intense conflict between teachers and the administration. Finally, those individual teachers with the highest professional orientations and the lowest orientations to the organization had the highest overall rates of conflict.

The extent to which schools might be considered bureaucratic was investigated recently by MacKay (26). An Organizational Inventory was used which measured six dimensions of bureaucracy in schools: (1) Hierarchical Authority, (2) Specialization, (3) Emphasis on Behaviorial Rules for Incumbents, (4) Procedural Specification, (5) Impersonality, (6) Emphasis on Technical Competence. It was found that teachers generally want more bureaucratization than they have at present in their schools. This would seem to contradict the general idea being put forth here that professional role concepts are incompatible with bureaucratic structural demands. A close analysis of the data reveals, however, that there was a significant difference in the desire for certain aspects of bureaucratization between those teachers with more years of education and those with fewer years of education. Since years of education represents the amount of professional preparation and may serve as a crude index of the degree of professionalization, it might be suggested that the more professionally-oriented teachers view the desirability of the various dimensions of burearcracy in a different way from those who are less profes-

sionally oriented. Teachers with more years of education desired significantly more specialization and less emphasis on behaviorial rules. This supports the professional role concept of an emphasis on specialized skills being performed in an autonomous atmosphere.

The question may be raised as to whether years of education representing the amount of professional training can serve as a useful index of the degree of professional orientation. This remains to be tested but certain studies indicate that there is a strong relationship between years of education and certain dimensions of a professional orientation. Ingram (22), in a recent study, investigated teacher involvement in a teachers' professional organization (The Alberta Teachers' Association). The term "involvement" was used to denote the total orientation of the individual to the organization and this term subsumed two main aspects of involvement: (1) "participation," that is, the amount of time and effort a member spent taking part in the affairs and activities of the organization; and (2) "commitment," that is, the member's attitude of favorability towards the organization, its leadership, its program, its goals and its policies. The results of his study indicate that teachers with more years of training scored significantly higher on both "participation" and "commitment." A "high participation"-"high commitment" orientation was strongly associated with the

number of years of training (p. < .01). These findings sug-
gest that years of education may serve as a useful guide to
the degree of professionalism if a strong orientation to one's
professional association is regarded as one of the dimensions
of a total professional orientation.

As further support for the use of the years of educa-
tion index as a rough guide to the degree of professional or-
ientation, Hrynyk (21, p. 102) found that teachers with less
training expressed a greater desire for classroom supervision
by the principal than did teachers with more training. The
negative feeling towards principal supervision was especially
pronounced among those teachers with post-graduate training.
If the desire for autonomy in the work situation is accepted
as a criterion of a professional self-concept, there is evi-
dence to support the idea that more training contributes to
a more professional orientation.

Moeller (27) investigated the influence of bureaucra-
tic organization of school districts on teachers' sense of
power to affect school district policy. Contrary to his ex-
pectations, he found that bureaucratic structure does not
induce in teachers a sense of powerlessness to influence
policy. In fact, teachers in highly bureaucratized systems
had a significantly higher sense of power than those tea-
chers in less bureaucratized systems. Moeller concluded that
for most teachers the bureaucratic structure induced a feeling

of power because of the inherent predictability of this form
of organization. He did find, however, that teachers did dif-
fer in their sense of power and this feeling was stronger
among male teachers in elementary schools, teachers with long
periods of service in the district, and teachers who came from
families with a professional rather than a labour background.
Thus, differences between teachers may be attributed to the
comparative evaluation teachers make of themselves in relation
to other teachers. One finding of this study is of particular
interest for the Canadian scene. Organizational membership in
a teachers' organization augmented significantly a teacher's
sense of power. This result would seem to have importance in
Canada where automatic membership in teachers' organizations
is the modus operandi in most areas.

In summary then, there is growing evidence to indicate
that the bureaucratic demands of school organizations are
placing strains on those teachers who possess professional role
orientations. As is the case in other organizations, various
mechanisms are being developed to reduce this stress. The na-
ture of these mechanisms is reviewed in the section to follow
on organizational adaptation to professionalism.

Professional Principles and Bureaucratic Principles: Compati-bilities and Incompatibilities

To this point emphasis has been put on the incompatibi-
lity of professional role orientations with the bureaucratic

structure of organizations. This is an over-simplification of the problem as bureaucratic principles and professional principles have much in common. Parsons (28, pp. 58-60), Gouldner (17, pp. 22-24), Blau and Scott (4, pp. 60-63), have all pointed out that both the bureaucrat and the professional emphasize competence in the work situation. The professional's success rests upon outstanding performance in accordance with the accepted standard of his colleague group. In a similar manner, the bureaucrat is appointed to a position because of his technical qualifications rather than because who he is, or what connections he has; and his career advancement is governed by objective and explicit official criteria (4, p. 61).

A second characteristic of professionalism is the specificity of professional expertness. The trained professional is a specialized expert trained to deal with problems in a limited area of competence. This principle of specificity applies with equal force to the bureaucrat. In his case too, specialization is the key to expertness, and the essence of bureaucracy is circumscribed authority. In summary then, professional and bureaucratic principles have these characteristics in common: an emphasis on competence, and an emphasis on specialization.

Although the similarities mentioned above are important they should not be allowed to obscure certain other essential differences between professional and bureaucratic principles.

The first and most essential difference concerns authority.
In the classical bureaucratic concept of the organization,
authority is legitimated in terms of the position held. Every
superior has the right to expect that subordinates will obey
him, and each subordinate has an obligation to obey his super-
iors. It is on this point, that Weber's model of bureaucracy
overlooked the question of professional expertise. Parsons
(28, p. 59) suggests that Weber confuses two distinct kinds
of authority: (1) authority which rests on incumbency of a
legally-defined office, and (2) authority which is based on
technical competence. One is not stretching Weber too far to
suggest that he felt that the higher the rank of the official,
the greater his technical competence. Of course, persons who
occupy high positions of authority may possess "superior"
skills to those subordinate to them but this does not neces-
sarily follow. It might be argued also that the skills they
possess are of a different order, that is, "executive" skills
rather than competence in a professional area of practice.
Thus, the Weberian concept of bureaucracy fails to recognize
the professional authority of subordinates and to fit it into
the organizational authority structure. The notion of hierar-
chical authority is not central to a professional ideology.
In a bureaucracy the superior has the "right to the last word"
because he _is_ the superior; in professional matters the last
word belongs to he who possesses superior professional compe-
tence.

Relative to the question of hierarchical authority is the problem of client versus organization orientation. A professional is bound by a norm of service to represent the welfare and interests of his clients, whereas the bureaucrat's foremost responsibility is to represent and promote the interests of his organization. Only in the case of service organizations like schools, do the ultimate objectives of serving clients and serving the organization coincide, and even specific immediate objectives often conflict. In this case, the organization is oriented to serving the collective interests of its entire clientele and this may demand that the interests of some clients be sacrificed at times to further the interests of the majority.

Important differences also exist between professional principles and bureaucratic principles over the questions of behavioral rules for incumbents and procedural specification. In the Weberian concept of bureaucracy, rules serve to govern the activities of experts and preclude the necessity for the issuance of specific instructions in each specific case. The general use of rules thus requires the constant use of categorization, whereby individual problems and cases are classified on the basis of designated criteria and are treated accordingly. As Litwak (24, p. 178) has pointed out, this point of view assumes uniform events and impersonal relations. Weber failed to recognize that as organizations grew more complex they would encompass more diverse events and greater

amounts of social relationships. If a general rule is developed for each situation, the rules become so numerous as to defy learning. If on the other hand, strict categorization is resorted to, injustices are perpetuated against individuals employed in the organization and against clients. The professional with his internalized standards as a guide to his behavior thus tends to resist categorization either of himself or his clients.

Much that has been said about an emphasis on behavioral rules for incumbents can be also said with regard to procedural specification. Professionals see themselves as individuals who should be guided in their work by professional considerations of what is the right procedure rather than what the organization decides is procedurally correct.

The strong client orientation of the professional also conflicts with the bureaucratic demand for impersonality in the organization. Some writers see no conflict between bureaucratic principles and professional principles on the question of impersonality. Blau and Scott (4, p. 62) hold that the professional's relations with his clients are characterized by affective neutrality. Professional codes of ethics condemn emotional involvement with the client. These norms protect the client from being emotionally exploited and the practitioner from being torn apart by sympathy for his clients.

In summary then, professional principles and bureaucratic principles clash on the following points: the importance of hierarchical authority; the importance of behavioral rules for incumbents; the importance of procedural specification and the importance of impersonality.

Earlier in this study it was mentioned that there is evidence to indicate that schools are becoming more bureaucratized and at the same time teachers are developing more professional self-concepts. MacKay (16, p. 167) found in his study of bureaucracy in schools that the Weberian model of bureaucracy was not generally descriptive of schools and most of the dimensions of bureaucracy (except technical competence) were somewhat de-emphasized in schools. It might be tentatively suggested that this finding is supportive of the idea to be expanded in greater length later in this study that the orientations of the organizational membership help to determine the nature of the organizational structure. Nevertheless, MacKay found that teachers wanted more bureaucratization than they found in their schools and this idea runs contrary to the generally held notion that a professional orientation is antithetical to a desire for more bureaucracy. As the analysis to this point indicates, this is an over-simplification for two reasons. First of all, not all features of bureaucracy are incompatible with a professional orientation; only some are. Secondly, teachers are not homogeneously pro-

fessional in orientation. A close analysis of MacKay's find-
ings indicates that teachers with more years of training did
differ significantly on the question of the desirability of
two dimensions of bureaucracy (specialization and an emphasis
on rules) from those with less years of training. It seems
it would be profitable to identify those teachers who are high
in professional orientation and discover what dimensions of
bureaucracy are desirable and undesirable in terms of this
high professional orientation. Using the dimensions of bur-
eaucracy chosen by MacKay as a synthesis of sociological
thought on what constitutes the features of bureaucracy, a
comparison can be made of what is a desirable in terms of the
Weberian ideal, MacKay's teacher sample, and finally, the
desirable emphasis in terms of a sample of teachers with a
"High Professional Orientation." Research evidence to date
would seem to indicate the following comparisons could be made:

		WEBERIAN IDEAL	MACKAY'S TEACHERS	HIGH PROFESSIONAL ORIENTATION	
I	HIERARCHICAL AUTHORITY	VERY DESIRABLE	MODERATELY DESIRABLE	UNDESIRABLE	
II	SPECIALIZATION	VERY DESIRABLE	DESIRABLE	VERY DESIRABLE	RATED DESIRABILITY OF EACH BUREAUCRATIC DIMENSION
III	BEHAVIORAL RULES FOR INCUMBENTS	VERY DESIRABLE	DESIRABLE	UNDESIRABLE	
IV	PROCEDURAL SPECIFICATION	VERY DESIRABLE	DESIRABLE	UNDESIRABLE	
V	IMPERSONALITY	VERY DESIRABLE	DESIRABLE	UNDESIRABLE	
VI	EMPHASIS ON TECHNICAL COMPETENCE	VERY DESIRABLE	VERY DESIRABLE	VERY DESIRABLE	

II. ORGANIZATIONAL ADAPTATIONS TO PROFESSIONALISM

The Impact of Professionalism on the Bureaucratic Structure
of Organizations: Organizational Adaptations

Large numbers of professionals are currently being em-
ployed in various roles in bureaucratic organizations. The
increasing need for specialists and the increasing trend to-
wards bureaucratization in organizations will undoubtedly con-
tinue. In view of the incompatibility in principle of specific
bureaucratic and professional principles certain adaptations
and accommodations by the individual and the organization are
necessary to maintain organizational continuity and producti-
vity. The accommodations made by professionals to bureaucra-
tic organizations are very important but not central in inter-
est to this study. Instead, the focus will be on the impact
of professional members on the bureaucratic structure of organ-
izations and the adaptations organizations make for these mem-
bers.

In looking at this problem one must face the question of
inference of causality. The ideas to be advanced in this study
suggest that where a school's personnel (its principal and
staff) are highly professional, organizational adaptations of
the bureaucratic structure will take place to accommodate the
professionals' views on the desirability and the undesirabili-
ty of an emphasis on certain bureaucratic characteristics.
There seem to be reasonable grounds for suggesting that this

will take place for the following reasons. The concept of professionalism connotes the idea of highly internalized normative orientations which have been developed over a considerable period of time and presumably as a result of a lengthy period of training. In this sense they are stable and less amenable to change than organizational structure. Consequently, when the organization's members hold high professional orientations it is more likely that the organization will adapt to accommodate the professional's needs than is the possibility that the organization will cause the professional to re-define his role concept.

On the other hand where school personnel are less professional and do not possess highly internalized normative orientations they will have less impact on the organization and will themselves be more amenable to change as a result of organizational demands. Their individual role concepts will be less clearly defined in terms of professional criteria and they will possess less clear concepts of what constitutes a desirable organizational structure in terms of professional criteria and thus will be less likely to influence the development of a structure amenable to their needs. In this case of low professional schools, the nature of the organizational structure will be determined more by other factors such as extra-organizational demands rather than internal influence by the members of the organization.

In this argument there is clearly an inference of causality. In this century causal thinking has come under attack from many sources. It has been pointed out, quite realistically, that it is one matter to develop causal theories but it is quite another matter to test these theories and prove causality. Recent writing on the subject of causality (3, 8,) has stressed that a distinction should be made between theoretical language and operational language. Causal thinking belongs completely on the theoretical level and causal laws can never be tested empirically. But this does not mean that it is not helpful to think causally in the formulation of theory.

Causality thinking is thus merely a theoretical tool. Causality never can be tested empirically in the strictest sense of the term. Since it will always be possible that some unknown forces may be operating to disturb a given causal relationship or to lend us to believe a causal relationship exists when in fact it does not, causal evidence can never be empirically determined.

In actual research then, we translate our theoretical formulations into operational language; that is, into the actual tests used. The results we get cannot be stated in terms of causes, or forces, but only in terms of covariations, operations and directional readings (3, p. 5).

Professionalism and Organizational Emphasis on Specialization and Technical Competence

Bureaucratic principles and professional principles both emphasize the importance of specialization and technical competence. One might logically expect that in organizations which employ a high proportion of professionally oriented personnel that there will be an emphasis on these two organizational dimensions because of the congruence of bureaucratic and professional norms. Evidence on this point is extremely scanty. One small bit of evidence is found in Corwin's study (12, p. 278) where he discovered that there was an inverse relationship between specialization in schools and some types of conflict in the school. Since he also found that a high mean professional score for a school was associated with a high conflict rate, one possible source of the conflicts may be the professionally oriented teacher's desire for more specialization.

Professionalism and Organizational De-Emphasis of Hierarchical Authority

The classical Weberian concept of bureaucratic authority stresses expert judgement based on technical knowledge and disciplined compliance from subordinates. On the one hand, it is administration based on expertise; on the other, it is administration based on discipline. Weber implies that there is no conflict between these two principles and he implicity assumes

that in every disagreement between superior and subordinate,
the superior's judgement is also the better judgement in terms
of technical expertise. This is not a realistic assumption as
administrators in complex organizations are not merely occasion-
ally, but typically are less qualified to make expert technical
judgements than their professional subordinates since they can-
not possibly be the leading expert in each of the specialties
under their jurisdiction. Often indeed, they are not experts
in any of these specialties but in administration and very
often administrative considerations may conflict with profes-
sional considerations. Thus, the conflict between compliance
with administrative authority and adherence to professional
standards confronts the professional in the bureaucratic or-
ganization.

Increasing evidence is being accumulated to indicate
that certain types of organizational adaptations of hierarchi-
cal authority are being developed to take care of the organiza-
tional situations where professionals constitute a large part
of the membership of a bureaucratic organization. The main
form of adaptation involves a de-emphasis of hierarchical
authority and a re-structuring of authority relationships
based more on the primus inter pares concept. Furthermore,
this re-structuring usually involves a splitting of the class-
ical bureaucratic line of authority into two parts: "formal
authority," dealing with administrative matters and "advisory
authority," dealing with professional matters.

Goss (16) studied physicians who were structured hier-
archically in a hospital. She sought to discover the occur-
rence of strains and tensions resulting from the conflicting
demands of professional considerations and organizational de-
mands. She found, however, that there was little strain as
the hierarchical supervision exercised was strongly influ-
enced by the professional orientations of the subordinate doc-
tors. The professional norms held by the physicians did not
require that each physician be autonomous in every sphere of
his activity but only that he be free to make his own decisions
in professional matters as opposed to administrative concerns.
The professional norms held by the physician did not, how-
ever, rule out the possibility of supervision by superordinates.
As long as the supervisor was a physician, and the supervision
took the form of advice, it was within normatively acceptable
bounds. Thus, one of the organizational mechanisms for recon-
ciling hierarchical supervision of professional activity with
the maintenance of individual professional authority was the
concept of supervision as advice.

A related structural mechanism for avoiding strain was
found to be the practice of assigning supervisory duties only
to those persons whose formal rank and professional qualifi-
cations were sufficient to command the respect of the profes-
sionals under their supervision. The tentative conclusion may
be reached that the professional orientations of subordinates

affect the degree and kinds of control which those in super-
ordinate postions may exercise over professionals.

An earlier report by Hall (19) lends support to the posi-
tion that professional members influence the development of
less reliance on hierarchical authority in organizations.
Hall found that physicians in a hospital did not come under
the administration of the hospital in the ordinary hierarchi-
cal fashion. No one in the administrative hierarchy, for
example, the superintendent of the hospital, gave orders to
doctors although Hall noted that nurses, who were less pro-
fessional, were not so successful and came under the regular
line of command. The need for doctors to work together re-
sulted in the formation of small "teams" and this was best
illustrated in the operating rooms where the diverse skills
of a number of specialists were pooled. While the various
doctors were not completely equal the concept of a working
team was different from the notion of a single central
authority figure dominating the work situation. This same
"team" concept revealed itself in the wards where a group
of doctors would form a "team" and this group would be re-
sponsible for a defined group of patients.

One of the major problems facing organizations is to
find individuals who can successfully head organizations
whose membership is predominantly professional and where the
professionals are in charge of the major goal activity.

Ideally, the role should be in the hands of an individual who is professional in his orientation, so that the commitment of the head will match the organizational goals. A professional at the head of the authority structure will mean that the professional activity is recognized as the major goal activity and that the needs of professionals will be more likely to receive understanding attention. On the other hand, organizations often have needs that are unrelated to the major goal activity, that is, raising funds, cost control, et cetera; and it may be that the professional will endanger the organization by emphasizing the major goal activity and neglecting important secondary activities. If the role is performed by a non-professional, however, there may occur an over-ritualization of means which could undermine the goals for which the organization has been established. Thus, the use of lay administrators in professional organizations can lead to goal displacement and is usually avoided.

The most common solution to this problem is to employ an administrator who combines a professional background with an interest in administration. The advantage of this type of person is obvious. He has a deeper commitment to professional values and commands more respect from his professional subordinates than does a lay administrator. The use of an administrator with a professional background can also serve to mitigate against an emphasis on hierarchical

authority in a professional organization. The equality feelings that prevail among professionals tend to reduce the reliance on hierarchical authority as a means of control. Authority relationships tend to be re-structured with "formal line" authority existing for control in administrative matters; whereas in areas of professional activity formal line authority is not exercised. This is replaced with "advisory authority" where the professional subordinate is free to accept or reject the superordinate's suggestions in matters concerning the professional's activity.

Schools are an example of an organization which employs administrators with a professional background similar to their subordinates. Virtually all school principals have been teachers. The question as to whether principals retain an orientation to the teaching profession or replace it with an "administrative" orientation has not been investigated very fully. Trask (34, p. 84) found in her study of school principals that most principals were oriented primarily to the teaching profession. It might be expected that principals who are oriented primarily to and identify strongly with the teaching profession will practice behaviors and design structures that are compatible with what teachers view as the desirable. On the other hand, principals who are less oriented to the norms and values of the teaching profession may be less sensitive to teachers' feelings. In addition, these principals, because

they are less oriented to the ideals of their subordinates,
may be more sensitive to the wishes of those in positions
of authority above them, for example, superintendents.

Trask (34) reported in her study of principals in Cheshire
City, that principals were required by the superintendent to
spend 60% of their time in the supervision of classroom in-
struction of teachers. She found, however, that not all prin-
cipals did spend this amount of time in classrooms. Many de-
vised mechanisms to circumvent this imposed bureaucratic re-
quirement. First of all, principals did not give unsolicited
advice to teachers but only gave requested advice. Secondly,
principals employed differential supervisory practices and
did little supervising of teachers whose professional compe-
tence in their subject or grade area was greater than the
principal perceived his competency to be. Finally, to meet
the imposed bureaucratic demand for principals to spend more
time in supervision Trask found that the principals re-de-
fined the term "supervision" so that it included a number of
matters not commonly deemed to be supervision per se. As one
principal said:

> I know that 60% of our time should be spent on im-
> proving instruction, not only in supervision as
> supervision, but it might be in committee meetings,
> improving the curriculum. Supervision, I regard
> that as observing; it may be just semantics. The
> teacher may send a set of papers to the office;
> that's a remote form of supervision (33).

Principals thus devised a number of ways in which they could reconcile the conflict between the bureaucratic demand for hierarchical supervision of teachers with the preservation of the teachers' professional norms of autonomy. No attempt was made in this study to relate the extent to which principals devised mechanisms to avoid conflict and the principals' degree of orientation to the teaching profession. It seems reasonable to suggest that it would be those principals who were most strongly oriented to the teaching profession who would devise the mechanisms to protect teacher feelings for autonomy.

In summary, a high degree of professional role orientation on part of the organizational members will tend to influence organizational de-emphasis of hierarchical authority as a means of control in the organization. This is most likely to happen when the administrative head possesses an orientation similar to that possessed by his subordinates. The necessity of exercising hierarchical supervisory control over the organizational members is met through the fracturing of the concept of the single line of authority. "Formal line" authority still exists for adminstrative matters but is not exercised in matters pertaining to the professional's area of competence. Supervision of professional activity here takes the form of advice and this may then be called the "advisory authority" relationship.

Professionalism and Organizational De-Emphasis of Behavioral
Rules for Incumbents, Procedural Specification, and Imperson-
ality.

The analysis to this point has stressed the premise that

high professionalism in an organization is associated with

an organizational de-emphasis of hierarchical authority. Auth-

ority and its source is the central issue in the conflict be-

tween bureaucratic and professional principles. The bureau-

cratic dimensions of: (1) an emphasis on behavioral rules for

incumbents; (2) procedural specification; and (3) impersonal-

ity are all related to the concept of authority and thus are

associated with the conflict between professional and bureau-

cratic principles.

Weber, in his model of bureaucracy, stressed the import-

ance of rules and regulations for organizational members. The

system of rules was designed to govern official actions and

the application of these general regulations was to apply to

all particular cases. Rules were to insure that there was

uniformity of operations and, together with the authority

structure, make possible the co-ordination of various acti-

vities. All of this was designed to produce maximum effi-

ciency and continuity of operation.

The major weakness in Weber's concept of the importance

of rules is that it assumes that once the rules are adopted

they will be acknowledged as rational by all organizational

members. As Gouldner (17, p. 20) points out, rules may be
considered very rational by the administration but not at
all rational by other organizational members. Furthermore,
Litwak (34, p. 179) indicates that the Weberian concept
assumes fairly uniform tasks and impersonal social relation-
ships but this situation is not found in organizations whose
membership is predominantly professional. Although it is re-
cognized that certain rules are necessary for co-ordination
in the organization, an over-emphasis on rules in a profes-
sional organization runs counter to the professional's need
to guide himself in his actions by his internalized standards
of what constitutes the correct action, especially in dealing
with his clients. In fact, an over-emphasis on rules and regu-
lations is viewed by the professional as a ritualization of
means which serves to undermine the major goal activity as
it pertains to his professional pursuits. Consequently, one
might expect to find a de-emphasis of behavioral rules for
incumbents in an organization whose membership is predominant-
ly professional in orientation.

A de-emphasis of procedural specification should also
occur in professional organizations. Professional tasks are
characterized by their non-uniform nature and do not lend
themselves readily to tight specification of procedures. For
this reason alone professional organizations can not adopt a
high degree of procedural specification. Furthermore, when

organizational members possess internalized professional standards, procedural specification is neither necessary nor desirable. Pelz (29, pp. 310-325) found that in occupations dealing with non-uniform tasks there was a high correlation between the members' motivation to work and their productivity when they were free to make their own decisions as to the methods to be used. In contrast, those working on uniform tasks had a higher motivation to work and higher productivity when they were restricted in their decision-making.

Stinchcombe (32, pp. 168-187) compared the organization of construction and mass-production industries in the United States. He found that the construction industries, in contrast to mass production industries, were low in bureaucratization. They had only a small bureaucratic apparatus of hierarchically organized officials and there was little flow of specific directives from superiors (contractors) to subordinates (sub-contractors). Stinchcombe concluded that the greater degree of professionalization of its work force enabled the construction industry to function with a minimum of bureaucratization. The workers employed were for the most part skilled craftsmen, who could perform their tasks without much direction and control from superiors, because their work was guided by standards of craftsmanship which were akin to professional standards. In short, a professionalized work

force obviates the need for high procedural specification.

Lastly, a professional climate in an organization would seem to be associated with a de-emphasis of impersonality. The bureaucratic requirement of giving impersonal treatment to all clients, disregarding all personal considerations, seems incongruent with the commitment of the professional to serve his clients in the best individual manner.

In addition, organizational members who are professionally oriented would tend to resist impersonal treatment from superiors in the administrative hierarchy. This results primarily from the fact that they perceive less status differential between themselves and their superiors. Andrews (1, pp. 19-20), in a study of organizational climate in Alberta schools, found that teachers with more years of professional preparation perceived less aloofness (formal and impersonal behavior on the part of the principal) than did those teachers with fewer years of professional training.

In another Alberta study, MacKay (26, pp. 101-102) found that teachers with more years of professional education perceived less emphasis on hierarchical authority in schools than did those teachers with fewer years of training. This suggests that staff members with more professional training tend to be more independent and it might be suggested that they are not treated as formally and impersonally by superiors in the organization as are staff members less highly trained.

Professional Role Orientations of Teachers

The central thesis of this study has been that profes-
sionalism has an impact on organizational structure and that
when an organization contains a high percentage of profes-
sionals, the organization will adapt to accommodate profes-
sional needs. The question has not been raised as to what
extent teachers possess professional role orientations. There
are indications that teachers are not uniformly professional
in their orientations. Some teachers are less "client-ori-
ented," that is less committed to children; less oriented to
their profession and its ideals; and more administration con-
scious. On the other hand, many teachers view themselves as
"full-fledged" professionals and feel that they should be
more autonomous in their work environment.

The extent to which teachers possess professional role
orientations was investigated recently by Corwin (12).
Through the use of a carefully designed instrument[1] he found
that teachers did differ in their degree of professional role
orientation. Comparisons were also made of differences in the
mean professional scores of schools (that is, the school mean
for the teachers' scores on the professional orientation scale)
and here he found there was no statistically significant dif-
ference in mean professional scores between schools. The

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[1]See page 70 ff. for a full description of this instrument.

sample used by Corwin was, however, small (seven schools) and did not match the proportions in the state and national populations. In the sample of schools, small schools (20 or less teachers) were under-represented and medium-large schools (55 to 99 teachers were over-represented. In looking at the characteristics of teachers; Corwin's sample, in comparison to state and national norms, was considerably older, more experienced and had more bachelor's degrees.

It should be noted, however, that there was a statistically significant difference between the mean of the most professional school in the sample and the least professional school (p. < .05), and this difference promises that the scale will have more discriminative power in a larger and more representative sample of schools. One may tentatively conclude then that teachers do differ in their professional role orientations and that schools may differ in their mean professional scores.

III. DEFINITION OF TERMS

Teacher's Professional Score

This term refers to an individual teacher's score on the Professional Role Orientation Scale.

Principal's Professional Score

This term refers to an individual principal's score on the

Professional Role Orientation Scale.

Staff Professional Score

The staff professional score is a school score. It is the mean of all the individual teacher scores on the Professional Role Orientation Scale.

High Professional School

This term refers to a school where both the principal's professional score and the staff professional score are above the respective means for principals and teaching staff on the Professional Role Orientation Scale.

Low Professional School

This term refers to a school where both the principal's professional score and the staff professional score are below the respective means for principals and teaching staff on the Professional Role Orientation Scale.

Observed Bureaucratic Score

This term refers to a teacher's rating of the degree to which an item or items describing one of the six bureaucratic dimensions measured by the School Organizational Inventory is applicable to the respondent's own school.

Perceived Desirability of the Bureaucratic Dimensions

This term refers to a teacher's or principal's rating of each of the six bureaucratic dimensions as being desirable in an "ideal" school.

Advisory Authority Score

This term refers to a teacher's rating of the principal on the Advisory Authority Instrument.

School Size Score

This term refers to the number of full-time staff (teachers and administrators) in each school as reported by the principal of the school.

IV. DELIMITATIONS, LIMITATIONS, AND ASSUMPTIONS

Delimitations

The major delimitation of this study is that it has been restricted to an investigation of the relationships between three school intra-organizational variables (staff professionalism, principals' professionalism, and school size) and the degree of bureaucratization found in school organizations analysed in terms of a six-dimensional bureaucratic model. No attempt was made to examine the effects of other intra-organizational or extra-organizational variables on bureaucratization in schools. It is recognized, however, that other

variables do exist; but the study of their relationship to the six bureaucratic dimensions was outside the scope of this investigation.

A further delimitation of this study is that only British Columbia schools with ten or more full-time staff members were used.

Limitations

The major limitation of this study is that the variables studied represent only a selective aspect of larger concepts. Thus, professional role orientations represent only one facet of the total self-concept an individual has of his role. No attempt is being made to measure, for example, a teacher's employee orientation; or a principal's orientation to the profession of administration. In addition, the School Organizational Inventory does not purport to measure all bureaucratic dimensions of school organizations, but instead, focuses on six dimensions held to be characteristic and representative. Similarly, the Advisory Authority Instrument is designed to measure only certain aspects of principal-teacher authority relationships.

Finally, generalizations which are drawn from this study should be limited to the population sampled, or in a cautious manner, to school organizations similar in parameters to the British Columbia school population.

Assumptions

Perhaps the major assumption underlying the present study is that an individual's role orientation is measurable by an analysis of responses to a questionnaire. Some may contend that orientations are implicit in the behavior of others and any true study of orientations would necessitate the observation of this behavior. In many ways, role orientations are akin to values and attitudes and one of the foremost authorities in the study of values (Kluckhohn) states that what a person says about his values is equally as valid, and perhaps truer from a long-term view-point, than inferences drawn from his actions under special conditions. Kluckhohn argues:

> The fact that an individual will lie under stress of
> unusual circumstances does not prove that truth is
> not a value which orients, as he claims, his ordin-
> ary behavior. As a matter of fact, people often lie
> by their acts and tell the truth with words. The
> whole conventional dichotomy is misleading because
> speech is a form of behavior (23, p. 406).

The major methodological assumptions underlying the study are that the sample selected represents adequately the population, and that the instruments used produced valid and reliable measures of the concepts being measured.

Finally, certain statistical assumptions underlie the statistical techniques employed in the study. In this study, all statistical tests used (with the exception of one, chi square) were parametric. As such, parametric statistics involve a

number of assumptions about the nature of the distribution
of the variables in the population from which the sample is
drawn. In all cases where parametric statistics have been
used, it was assumed that the assumptions underlying the use
of these statistics were met. Where it was known that the
assumptions were not met, a discussion has been made of the
implications of this failure to meet the assumptions.

V. SUB-PROBLEMS AND HYPOTHESES

Flowing from the theoretical framework outlined in Sec-
tions II and III of this chapter are several researchable sub-
problems.

Sub-Problem 1.0

Do schools differ in their degree of staff profession-
alism, that is, in their staff professional scores?

A staff professional score for each school in this study
will be obtained by calculating the mean of all the individ-
ual teacher scores in each school on the scale used to mea-
sure the professional role orientations of teachers.

Hypothesis 1.1. It is hypothesized that schools will
differ in their staff professional scores.

Sub-Problem 2.0

Is the bureaucratic structure of schools different in

schools with a high staff professional score as compared to schools with a low staff professional score?

In the analysis of this sub-problem the implication is that the professional orientations of the staff members of a school influence the degree and kind of bureaucratic structure found in the school. It is recognized that other factors are at work influencing the degree of bureaucratization in schools and two of these other factors are probably the size of the school and the degree of professional orientation of the principal.

The instrument used to measure bureaucratization in schools is the School Organizational Inventory. This instrument is a refinement of the work of Hall and MacKay. Initially, Hall (20) developed an inventory to measure bureaucracy in commercial and governmental organizations and this inventory was modified by MacKay (26) for the study of bureaucracy in schools.

Hall (20, p. 43) found in his study that there was a tendency for larger organizations to be more bureaucratic in terms of total bureaucratic score, although the results were not statistically significant. In his study of bureaucracy in Alberta schools, MacKay (26, pp. 85-88) found that there was a relationship between school size and certain bureaucratic dimensions. Specifically, size of school was related

significantly to the bureaucratic characteristics of: (1) an
emphasis on hierarchical authority, (2) an emphasis on behav-
ioral rules for incumbents and (3) an emphasis on procedural
specification. It is proposed, therefore, that the effects
of size on bureaucratization be partialled out. In addition,
it will be necessary to partial out the effects of the prin-
cipal's professional score on the degree of bureaucratization
found in the school. By controlling these two variables, it
will be possible to determine the residual relationship be-
tween staff professionalism and school scores on the six bur-
eaucratic dimensions.

Hypothesis 2.1. It is hypothesized that there will be
an inverse relationship between the staff professional scores
of schools and school scores on the bureaucratic dimension of
hierarchical authority.

Hypothesis 2.2. It is hypothesized that there will be
a direct relationship between the staff professional scores of
schools and school scores on the bureaucratic dimension of
specialization.

Hypothesis 2.3. It is hypothesized that there will be
an inverse relationship between the staff professional scores
of schools and school scores on the bureaucratic dimension of
emphasis on behavioral rules for incumbents.

Hypothesis 2.4. It is hypothesized that there will be an inverse relationship between the staff professional scores of schools and school scores on the bureaucratic dimension of procedural specification.

Hypothesis 2.5. It is hypothesized that there will be an inverse relationship between the staff professional scores of schools and school scores on the bureaucratic dimension of impersonality.

Hypothesis 2.6. It is hypothesized that there will be a direct relationship between the staff professional scores of schools and school scores on the bureaucratic dimension of emphasis on technical competence.

Sub-Problem 3.0

Are the principals' professional scores related to the degree and kind of bureaucratization found in each of their schools?

The analysis provided in Section II of this chapter suggested that administrative heads of professional organizations differ in the extent to which they are oriented to the profession from which they themselves came. Some organizational heads are oriented primarily to the profession of their subordinates, whereas others are not. In the former case, the principals will likely be more sensitive to the wishes of their subordinates and

they should be influenced by this orientation in designing organizational structures that are compatible with their subordinates' desires. In the latter case, this will be less likely. In the analysis of this sub-problem an attempt is being made to measure only the principal's degree of orientation to the teaching profession. Any other orientations he may possess are not being measured.

To determine the principal's degree of orientation to the teaching profession (the principal's professional score) and its residual relationship to the school's scores on the six bureaucratic dimensions it will be necessary to partial out the effects of size and staff professionalism.

Hypothesis 3.1. It is hypothesized that there will be an inverse relationship between principals' professional scores and school scores on the bureaucratic dimension of hierarchical authority.

Hypothesis 3.2. It is hypothesized that there will be a direct relationship between principals' professional scores and school scores on the bureaucratic dimension of specialization.

Hypothesis 3.3. It is hypothesized that there will be an inverse relationship between principals' professional scores and school scores on the bureaucratic dimension of emphasis on behavioral rules for incumbents.

Hypothesis 3.4. It is hypothesized that there will be an inverse relationship between principals' professional scores and school scores on the bureaucratic dimension of procedural specifications.

Hypothesis 3.5. It is hypothesized that there will be an inverse relationship between principals' professional scores and school scores on the bureaucratic dimension of impersonality.

Hypothesis 3.6. It is hypothesized that there will be a direct relationship between principals' professional scores and school scores on the bureaucratic dimension of emphasis on technical competence.

Sub-Problem 4.0

What is the relation between the professional orientations of teachers and their attitude towards bureaucracy as an ideal organizational form for schools?

In the analysis of this sub-problem an examination will be made of the relationship between the scores of all the teachers in the sample on the Professional Role Orientation Scale with their attitudes towards bureaucracy as an ideal organizational form for schools. Teacher attitudes towards bureaucracy will be examined along the six bureaucratic dimensions measured by the School Organizational Inventory.

Hypothesis 4.1. It is hypothesized that there will be an inverse relationship between teachers' professional scores and teachers' scores on the desirability of an emphasis on hierarchical authority in schools.

Hypothesis 4.2. It is hypothesized that there will be a direct relationship between teachers' professional scores and teachers' scores on the desirability of specialization in schools.

Hypothesis 4.3. It is hypothesized that there will be an inverse relationship between teachers' professional scores and teachers' scores on the desirability of an emphasis on behavioral rules for incumbents in schools.

Hypothesis 4.4. It is hypothesized that there will be an inverse relationship between teachers' professional scores and teachers' scores on the desirability of procedural specification in schools.

Hypothesis 4.5. It is hypothesized that there will be an inverse relationship between teachers' professional scores and teachers' scores on the desirability of impersonality in schools.

Hypothesis 4.6. It is hypothesized that there will be a direct relationship between teachers' professional scores and teachers' scores on the desirability of an emphasis of

technical competence in schools.

Sub-Problem 5.0

What is the relationship between principals' profession-
al scores and their attitude towards bureaucracy as an ideal
organizational form for schools?

The purpose in analysing this sub-problem was to deter-
mine whether the position the principal holds in the school
influences his attitude towards bureaucracy as an ideal or-
ganizational form for schools. Hall (20), in his study of
commercial organizations, found that administrators in the
organization had different perceptions of the organizational
setting than did their subordinates. He did not attempt to
examine their attitudes towards bureaucracy as an ideal or-
ganizational form. MacKay (26, pp. 140-141) found in his
study of Alberta schools that the principals and teachers
did not differ in their perceptions of the bureaucratic or-
ganization "as it was," or in their attitudes towards bureau-
cracy as an ideal organizational form for schools. It seems
profitable to examine these findings in terms of the degree
to which principals are oriented to the norms of teacher pro-
fessionalism. It may be reasonable to suggest that those
principals who are strongly oriented to the norms of teacher
professionalism may have a different attitude towards the de-
sirability of bureaucracy as an ideal organizational form than

those principals who are less professionally oriented and pre-
sumably more subject to other organizational and extra-organi-
zational influences.

Hypothesis 5.1. It is hypothesized that there will be
a significant difference between principals with a high pro-
fessional score and principals with a low professional score
in their attitudes towards the desirability of an emphasis
on hierarchical authority in schools.

Hypothesis 5.2. It is hypothesized that there will be
a significant difference between principals with a high pro-
fessional score and principals with a low professional score
in their attitudes towards the desirability of an emphasis on
specialization in schools.

Hypothesis 5.3. It is hypothesized that there will be
significant difference between principals with a high pro-
fessional score and principals with a low professional score
in their attitudes towards the desirability of an emphasis
on behavioral rules for incumbents in schools.

Hypothesis 5.4. It is hypothesized that there will be
a significant difference between principals with a high pro-
fessional score and principals with a low professional score
in their attitudes towards the desirability of an emphasis
on procedural specification in schools.

Hypothesis 5.5. It is hypothesized that there will be a significant difference between principals with a high professional score and principals with a low professional score in their attitude towards the desirability of an emphasis on impersonality in schools.

Hypothesis 5.6. It is hypothesized that there will be a significant difference between principals with a high professional score and principals with a low professional score in their attitude towards the desirability of an emphasis on technical competence in schools.

Sub-Problem 6.0.

To what extent is the exercise of advisory authority by the principal related to the degree of his professionalism and the degree of professionalism possessed by his subordinate teachers?

In the analysis of this problem an attempt was made to determine whether advisory authority is used by principals more in schools that are highly professional, that is, where both the principal and the staff have high professional scores as compared to schools which are low in professionalism, that is, where both the principal and staff have low professional scores. Advisory authority as exercised by the principal is conceptualized as comprising principals' behaviors which stress: (1) the granting of considerable autonomy to teachers

in their professional work, (2) a reliance on requested advice rather than unsolicited advice in dealing with teachers on professional matters, (3) a recognition by the teachers that the principal's advice on professional matters may either be accepted or rejected without fear of disapproval.

Hypothesis 6.1. It is hypothesized that high professional schools will differ significantly from low professional schools in the prevalence of the use of advisory authority.

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CHAPTER III

RESEARCH METHODOLOGY

I. DATA REQUIRED

In order to test the hypotheses proposed, it was nec-
essary to collect certain identification data on principals,
teachers, and schools, data on the professional role orien-
tations of teachers and principals, data on the observed
degree of bureaucratization of each school in which each
principal and staff is working, data on the perceived desir-
ability of bureaucratic dimensions of schools, and data on
advisory authority relationships in schools.

II. INSTRUMENTATION

Personal Data Questionnaire

This questionnaire was constructed especially for this
study to elicit the following information on each teacher
and principal: sex, position held, teaching experience,
teaching level, type of academic and professional preparation,
length of time in present school, and marital status.

Data on School Size and Type

This questionnaire was answered by principals only and
each principal was asked to indicate: (1) the type of school
supervised by the principal; and (2) the number of full time
staff members (both teachers and administrators).

Professional Role Orientation Scale

The professional role orientations of teachers and principals was measured by the section of the total questionnaire entitled Role Attitudes of Teachers. It was felt advisable to omit mention of the word "professional" in the title of this instrument as the word "professional" has strongly positive connotative qualities. The title chosen, Role Attitudes of Teachers, was considered more neutral and less coloured.

The instrument used to measure the professional role orientations of teachers and principals was, nevertheless, the Professional Role Orientation Scale (Appendix A). This scale was developed by R. G. Corwin and his staff as part of a U. S. Office of Education project (2). The professional role orientation scale or professional status conception scale was developed by Corwin in a number of stages. First of all, an extensive review of the literature was undertaken and a large number of items were selected that were thought to be appropriate to this scale. The items were checked by Corwin's project staff for face validity or possible duplications. One-half of the items were retained and these were then judged by a panel of sociologists for relevance to several dimensions of the professional concept. In this way five categories were arrived at representing related sub-scales of the professional scale. Later these five sub-scales were collapsed into four which are as follows:

client orientation, orientation to the profession and profes-
sional colleagues, competence based on monopoly of knowledge,
and decision-making authority and control over work.

The chosen items were then put together in the from of
a questionnaire and respondents were asked to answer each
statement in one of five ways: "strongly agree," "agree,"
"undecided," "disagree," or "strongly disagree."

Tests of internal consistency. After the administering
of the questionnaire, Corwin eliminated those items which
did not discriminate significantly between the high and the
low extremes of the sample. To determine this, the responses of
those individuals whose total scale scores were in the upper
quartile of the total distribution were compared on each
item with those individuals who were in the lower quartile
of the distribution. The scale value differences between
the two groups of respondents were then computed for each
item and tested for significance of difference of means by
the critical ratio test. The items on which there was no
statistically significant difference were then excluded.
The critical ratio for both the total scale and the sub-
scale comparisons had to reach the .01 level of significance
and furthermore, the scale value difference ratio of each
item had to reach .32 on both the subscale comparison and
the total scale comparison.

Scale reliability. The items that were tentatively ac-
cepted for the scale were then divided randomly into two sets
and each set was correlated with the other. The split-half
correlation for the professional scale was r = .48 which when
corrected with the Spearman-Brown prophecy formula is r_n = .65.
The split-half reliability of the scale was judged to be ac-
ceptable but it was not considered appropriate to view the
subscales reliable. This was because some of the subscales
contained only a few items.

Validating the scale. After the scale items were se-
lected they were validated by Corwin against groups of per-
sons who were reputed to act like "good" and "poor" profes-
sionals. The high professional validating group consisted
of full-time classroom teachers with five or more years of
education, who had received this training in colleges and
universities as opposed to normal schools or teachers' col-
leges. In addition, on the grounds that some types of pro-
fessional behavior are important whether or not all the
above conditions are met, persons were included in the high
professional validating group if they had published two or
more articles, or had held office in a professional associ-
ation, had been active in committees, or had presented papers
to one or more programs in association meetings.

The low professional validating group consisted of full-
time and part-time teachers educated in all types of insti-

tutions who subscribed to no more than one professional jour-
nal, who had not published two or more articles, who had not
been officers or very active in professional organizations,
and others who were not members of associations or were in-
frequent dues-paying members.

When the low professional and the high professional
validating groups were given the scale the critical ratio
obtained was 10.7 which was significant well beyond the
.01 level (one-tail).

The School Organizational Inventory

The instrument used to measure the degree of bureau-
cratization in schools and the desirability of certain
bureaucratic dimensions of schools was the School Organi-
zational Inventory. This instrument is a refinement of
an instrument first developed by Richard H. Hall (3)
called the Organizational Inventory, which was modified
by MacKay (5) for use in schools and later modified even
further by MacKay and this investigator (infra, pp. 84 ff.).

Hall developed this instrument to measure bureaucracy
in commercial and governmental organizations. His instru-
ment provided six sub-scores which contribute to a total
bureaucratization score for a particular organization. The
six sub-scores were designed to reflect the perceived degree
of bureaucratization along dimensions selected from a num-

ber of bureaucratic dimensions discussed in sociological literature. The sub-scales chosen by Hall were as follows:

I. Hierarchical Authority

II. Specialization

III. Rules for Incumbents

IV. Procedural Specification

V. Impersonality

VI. Technical Competence

Reliability and validity of the Hall instrument. The Spearman-Brown formula for split-half reliability was applied by Hall to each of the six sub-scales. On all scales the reliability coefficient was above .80.

To validate the instrument Hall selected organizations in his sample which were judged by independent observers to be at the extremes along one or more of the six dimensions. A two-tailed t-test indicated a significant relationship (at the .05 level) between scale score and judges' estimated degree of bureaucratization.

The MacKay modification for use in school organizations. MacKay modified the Hall instrument (the Organizational Inventory) for use in studying bureaucracy in schools. No major changes were made in concepts but changes were made to eliminate phraseology or terms peculiar to commercial or governmental organizations.

The modified Organizational Inventory was then submitted to an Alberta school staff. The staff members, after completing the Inventory, were interviewed and on the basis of their comments and responses, certain other changes in the Inventory were made. The final form of the Organizational Inventory was then prepared insofar as the measurement of bureaucratic characteristics of the schools was concerned.

Added to the bureaucratic scales were six items designed to test the respondents' perceptions of the desirability of the six bureaucratic characteristics as they might appear in an "ideal" school.

Intercorrelations between observed bureaucratic scores for schools. The six bureaucratic sub-scales of the Organizational Inventory showed positive significant intercorrelations in all but one instance on scales I - V (5, p. 74). Scale VI was significantly and negatively correlated with four of the other scales. This finding is supportive of Hall's findings (4, pp. 295-308) and indicates that an emphasis on technical competence is negatively related to other bureaucratic dimensions. That the Weberian model of bureaucracy contains concepts that are not all interrelated is supported by another study done by Udy (8, pp. 791-795). He hypothesized that the Weberian model contained both _bureaucratic_ and _rational_ elements. Weber had maintained that what was bureaucratic was rational. Udy found in his analysis of for-

mal organizations that bureaucratic elements were positively associated with each other but a relationship between the bureaucratic and rational elements did not exist. In this study an analysis of the hypotheses reveals the proposition that high professional schools will emphasize what they consider <u>rational</u> (Scales II and VI) and de-emphasize what they consider <u>bureaucratic</u> (Scales I, III, IV, and V).

<u>Analysis of variance among schools</u>. In his analysis, MacKay (5, pp. 70-90) found that schools differed significantly on the bureaucratic dimensions of hierarchical authority, specialization, rules for members and impersonality but not on procedural specification or an emphasis on technical competence. Size of schools was related to hierarchical authority, rules for members and procedural specification.

In the investigation of the relationship between observed bureaucratic scores in the school and staff members' desire for the different bureaucratic dimensions, MacKay found (5, pp. 89-96) that, although an interactive effect was present, within a particular school organization the staff members' observation of bureaucratization was not related to their desire for bureaucratization. This supports the notion that the observed scores were "realistic" in that they were not substantially affected by desirability (5, p. 99).

The Advisory Authority Instrument

The instrument used to measure advisory authority in schools was designed especially for this study and for purposes of administration to teachers was given the relatively colourless title, Teacher-Principal Relationships. Advisory authority was conceptualized as encompassing principals' behaviors which emphasize the following types of behaviors in dealing with teachers in their professional work: (1) the granting of considerable autonomy to teachers in their professional work; (2) in the supervision of teacher activity, a reliance on the use of requested advice rather than unsolicited advice; and (3) principal behaviour which recognizes the right of teachers to either accept or reject the principal's advice on matters of professional concern to the teachers without fear of gaining the principal's disapproval.

To measure the first aspect of advisory authority, that is, whether the principal grants considerable autonomy to his teachers, items from one of the twelve sub-scales of the Leader Behaviour Description Questionnaire - Form XII (7) were used. Sub-scale five, named Tolerance of Freedom measures leader behaviour as it related to the extent to which the leader allows his followers scope for initiative, decision, and action.

To measure the two other aspects of advisory authority, a rating of a simple, global, five-point Likert-type was constructed to measure each aspect. These two items are similar in type to those used frequently in studies done in the Department of Educational Administration at the University of Alberta. (1, p. 5).

III. THE PILOT STUDY

Purposes of the Pilot Study

The initial stage of this study consisted of a pilot study done in a selected sample of Alberta schools. The pilot study was designed to serve two purposes. The first purpose was to determine whether the Professional Role Orientation Scale developed by Corwin (Appendix A) would discover differences in teacher professionalism between schools, that is, differences in staff professional scores between schools. As has been noted earlier (ante, p. 50) Corwin found no statistically significant difference in teacher professionalism between schools. It was felt by this investigator, however, that differences should exist and the fact that Corwin failed to find these differences was attributable to his biased sample.

To determine whether differences in teacher professionalism did, in fact, exist between schools a purposive sample of high and low professional schools in Alberta was chosen.

To carry out this plan a panel of graduate students in ed-
cational administration, all of whom had been superintendents
and/or principals in Alberta, was asked to choose from a list
of Alberta schools two groups of schools--a high professional
group and a low professional group. To guide them in their
selection, the members of the panel were familiarized with
the substance of the Professional Role Orientation Scale and
the concept it was measuring.

A total of fifty-two schools was chosen. This was a
larger sample than was needed, so the panel reduced the num-
ber of schools to nineteen, of which ten were rated high pro-
essional, and nine were rated low professional. Care was
taken to include in both high and low groups, schools which
were both urban and rural, and elementary and secondary.

The second purpose of the pilot study was to examine the
responses on the Organizational Inventory developed by Hall
(3) and later modified by MacKay (Appendix B). It was felt
that some items on this instrument needed re-wording to
achieve greater clarity and that each of the six sub-scales
should be subjected to statistical testing to see if they
possessed internal consistency. This part of the pilot study
was carried out under the direction of D.A. MacKay of the
Department of Educational Administration at the University
of Alberta. To provide data for the analysis of the Organi-
zational Inventory, two sources were utilized. First of all,

the pilot sample of nineteen Alberta schools was given the
Organizational Inventory, in addition to the Professional
Role Orientation Scale. The second source of data was the
responses that MacKay obtained in a recent study which uti-
lized the Organizational Inventory (5).

Administration of the Pilot Study--Professional Role Orien-tation Scale Phase

Each of the nineteen Alberta schools in the purposive
sample chosen was sent a questionnaire entitled "School
Organization Characteristics and Teachers' Role Attitudes
Survey" (Appendix C). This questionnaire had three sec-
tions: (1) Personal Data, (2) Role Attitudes of Teachers,
that is, the Professional Role Orientation Scale, and (3)
School Organization Characteristics, that is, the Organi-
zational Inventory.

Item modification. The first step in the refinement
of Corwin's Professional Role Orientation Scale (Appendix
A) was to eliminate terms that were peculiarly American in
meaning and to improve the phraseology of some of the items.
In addition, item 8 of the Corwin scale was split into two
items (items 8 and 9) as this item contained two distinct
ideas.

Results. The revised scale was mailed to the nine-
teen participating schools, along with the other sections
of the questionnaire already mentioned. All of the schools

returned the instruments completed, but two of the schools' returns arrived too late for inclusion in the analysis of the data. Of the seventeen schools responding, the results are shown in Table I. The grand mean for the high professional group was 58.46 and the grand mean of the low professional group was 53.13. A t test for significance of differences between means revealed a t of 9.80 which is significant beyond the .001 level (one-tail).

A comparison was also made of the means of teacher groups in terms of the amount and kind of professional preparation (Table II). No complete comparison of all the means was undertaken but a comparison of those teachers with no degree (categories 1 to 6) with those teachers with a Bachelor of Education degree (Category 8) revealed a t of 5.40 which was significant beyond the .001 level (one-tail).

A chi-square test of proportions (10, p. 84) revealed no significant difference (p. < .30) between rural and urban schools in their staff professional scores.

A final result was that item 16 showed a lack of discriminating power and consequently was deleted in the scoring of the instrument.

Significance of the results. The results indicated clearly the usefulness of the Professional Role Orientation Scale in identifying differences in teacher professionalism

TABLE I

COMPARISON OF STAFF PROFESSIONAL SCORES OF RATED

LOW PROFESSIONAL AND HIGH PROFESSIONAL

SCHOOLS

(Rated Low Professional Schools = 8;
Rated High Professional Schools = 9)

	Geographic Setting	No. of Re- spondents	Staff Profes- sional Scores	t
Rated Low Profes- sional Schools:				
School No. 1	Rural	6	54.20	
School No. 2	Rural	11	52.82	
School No. 3	Rural	13	53.23	
School No. 4	Rural	10	52.70	
School No. 5	Rural	10	51.40	
School No. 6	Rural	12	53.92	
School No. 7	Rural	3	51.00	
School No. 8	Urban	10	53.60	
School No. 9	Urban	14	53.86	
Grand Mean			53.13	
				9.80***
Rated High Profes- sional Schools:				
School No. 10	Rural	12	59.75	
School No. 11	Rural	20	60.19	
School No. 12	Urban	33	58.91	
School No. 13	Urban	8	54.75	
School No. 14	Urban	15	55.73	
School No. 15	Urban	40	58.60	
School No. 16	Rural	10	56.30	
School No. 17	Urban	11	55.00	
Grand Mean			58.46	

*** Significant at the .001 Level (one-tail)

TABLE II

COMPARISON OF TEACHERS' PROFESSIONAL SCORES

BASED ON TYPE OF PROFESSIONAL

PREPARATION

(Teachers = 227)

Category	Type of Professional Preparation	N	Mean Professional Score
1	Letter of Authority	3	48.33
2	Grade 11 plus 1 year Normal School	2	50.50
3	Grade 12 plus 1 year Normal School	16	52.68
4	Grade 12 plus 1 year in the Faculty of Education	19	53.37
5	Grade 12 plus 2 years in the Faculty of Education (Elementary Program)	28	52.96
6	Grade 12 plus 2 years in the Faculty of Education (Secondary Program)	25	54.96
7	Arts or Science Degree plus 1 year Teacher Education	33	57.45
8	Bachelor of Education Degree	60	58.18
9	Arts or Science Degree plus Bachelor of Education Degree	35	58.23
10	Master of Education Degree	6	60.17

between schools. The results also reveal that teacher professionalism is not a uniquely urban nor rural phenomenon, but that high professional and low professional schools are found in both rural and urban communities. Finally, the results show the close relationship between the extent and kind of professional preparation and the degree of professional role orientation.

Administration of the Pilot Study--The Organizational Inventory Phase

As indicated earlier, the Organizational Inventory (School Organization Characteristics) was mailed to the pilot sample of schools along with the Professional Role Orientation Scale and the Personal Data Questionnaire. Prior to this mailing, certain modifications were made in the Inventory.

Item modification. It was decided jointly by D. A. MacKay and this investigator that certain items in the MacKay version of the Organizational Inventory (Appendix B) needed modification to achieve greater clarity in wording and some items needed to be re-written to tap more effectively the concepts being measured. Items 3, 13, 14, 15, 18, 21, 24, 25, 27, 33, 39, 45, 51, 52, 56, 57, and 58 thus underwent modification. In addition, a new Likert-type scale was adopted.

Analysis of the data. The returns from the pilot study sample were put on IBM cards and along with the data from MacKay's study (5) these returns were subjected to a test of internal consistency using correlation methods. Each item was examined to see if it correlated positively and highly with the total score for its sub-scale. For example, item 8 is designed to measure Scale I (hierarchical authority) and so it should correlate more highly with the total scale score for Scale I than it does with any of the other five total sub-scale scores. An examination of the pilot study data and the MacKay data revealed that the following items on the MacKay version of the Organization Inventory (Appendix B) and the revised version of the Organizational Inventory (School Organization Characteristics--Appendix C) did not correlate with their total sub-scale scores: items 5, 6, 36, 40, and 46. These items were thus discarded.

A further examination was made of items which had a standard deviation of less than 1.00. The low standard deviation served to indicate that these items were low in discriminative power. As a result of this examination of both the pilot study data and the MacKay data, items 1, 11, 17, 26, 27, and 43 were discarded.

Some items, however, had a standard deviation of less tha 1.00 on the pilot study data but a standard deviation of more than 1.00 on the MacKay data. These items were re-

tained and they were items 2, 29, 38, 42, 49, and 55. Items
3, 15, and 52 were new items and thus appeared only in the
pilot study data and although these three items had standard
deviations of less than 1.00 (.984, .994, .974 respectively)
the items were retained because of their strong correlation
with their respective sub-scale total scores.

A final visual inspection of the pilot study data re-
sulted in the discarding of three more items. Item 21 was
discarded because it had limited applicability to elementary
schools. Items 15 and 45 were virtually identical and so
item 15 was discarded because it had a lower correlation with
its total sub-scale score than did item 45. The same situa-
tion applied to items 7 and 31 and item 31 was rejected for
the same reason.

Consequently, as a result of this analysis the original
sixty-two items of the Organizational Inventory were reduced
to forty-eight. At this stage the instrument was given a
new name, the School Organizational Inventory (Appendix D).
The forty-eight items comprising the instrument are divided
into six bureaucratic scales. The items for each scale are
as follows:

Scale I (hierarchical authority)

Items 1, 7, 12, 23, 31, 34, 38, 39, 43, 47

Scale II (specialization)

Items 2, 8, 13, 22, 24, 30, 33

Scale III (rules for incumbents)

Items 3, 9, 14, 18, 25, 29, 40, 44

Scale IV (procedural specification)

Items 4, 15, 19, 35, 41, 45, 48

Scale V (impersonality)

Items 5, 10, 16, 20, 27, 36, 42, 46

Scale VI (technical competence)

Items 6, 11, 17, 21, 26, 28, 32, 37

The Complete Questionnaire

As a result of the procedures followed out that have been described in this chapter the following instruments constituted the complete questionnaire sent out to the respondents in the major sample for completion. The instruments were: (1) Personal Data Questionnaire, (2) Professional Role Orientation Scale (Role Attitudes of Teachers), (3) Advisory Authority Instrument (Teacher-Principal Relationships), (4) Data on School Size and Type, (5) The School Organizational Inventory. The whole set of these instruments was then given the overall title--"School Organizational Characteristics and Teachers' Role Attitudes Survey" (Appendix D).

IV. THE SAMPLE

Potential Sample

The sample of schools chosen was a stratified random sam-

ple from all British Columbian schools with ten or more tea-
chers. The basis of stratification was school type. To
this end, each school with ten or more teachers in each of
the six types of schools found in British Columbia (senior
secondary, junior-senior secondary, junior secondary, ele-
mentary-secondary, elementary-junior secondary, elementary)
was assigned a number. In all six types of schools in the
province there was a total of 541 schools with more than ten
teachers. This figure must be considered a close approxi-
mation as size of school based on the number of full-time
staff was not directly available from departmental records.
Size of school staff had to be estimated from the number of
students in each school based on the provincial teacher-
pupil ratio. This is only an approximate index because the
teacher entitlement ratio varies for different types of
schools and for special kinds of classes in a school. Never-
theless, this method proved to be quite reliable as only one
school with less than ten teachers was chosen for inclusion
in the potential sample.

For each type of school, a sample of approximately 10%
of the total population for each type was drawn through the
use of a set of random numbers (9). A total of fifty-five
schools was thus chosen and the number of schools for each
type of school is shown in Table III.

Experimental Sample

Returns were received from thirty-nine of the fifty-five schools which agreed to participate in the study. This represents a 70.91 per cent return. A number of returns (ten) were received from schools after the cut-off date (four weeks from mailing) but these returns were not included in the esperimental sample. In addition, ten more schools were discarded because it was felt that the incompleteness of their returns might bias the sample. To this end, any school with less than 63% of the total staff returning questionnaires was discarded. This left a total of twenty-nine schools in the experimental sample.

To test whether the experimental sample represented adequately the population, a chi-square test of proportions was used (10, p. 84). Under the null hypothesis, the sample proportions should not differ significantly from the population proportions. The results of this chi-square test are shown in Table III and the null hypothesis is supported.

V. DATA COLLECTION AND TREATMENT

Treatment of Incomplete Questionnaires

The questionnaires were sent to the British Columbia schools by mail. When these questionnaires were returned they were inspected for incomplete responses. Any questionnaire with more than four items incompleted was discarded.

TABLE III

CHI SQUARE TEST OF PROPORTIONS

IN EXPERIMENTAL SAMPLE

Type of School	P	N	p	n	p - P	$(p - P)^2$	$\dfrac{(p - P)^2}{p}$
Elementary	.580	314	.586	17	.006	.000036	.000
Elementary Jr. Secondary	.065	35	.069	2	.004	.000016	.000
Elementary Secondary	.091	49	.069	2	-.022	.000484	.005
Junior Secondary	.091	49	.103	3	.012	.000144	.002
Junior-Senior Secondary	.155	84	.103	3	-.052	.002704	.017
Senior Secondary	.018	10	.069	2	.051	.002601	.144
Total		541		29			.158

$\chi^2 = 29(.158) = 4.582 \ (p < .30)$

For those questionnaires with four or less items uncompleted
the median response was assigned to the uncompleted items by
the investigator. This method of dealing with incomplete re-
sponses was based on prevailing practice in social science
survey research. Moser indicates that an investigator can
feel free to assign a median response to a question provided
there are not too many unanswered questions. When there are
quite a few unanswered questions it is best to discard the
whole questionnaire. The exact level at which the question-
naire should be discarded depends upon a number of factors,
principally, the length of the questionnaire (6, p. 270).
This level must be set by the investigator. In this study,
the level of rejection was set at more than four unanswered
questions.

Computer Analysis

The responses on each questionnaire were transferred
to IBM cards. Initially, two decks of cards were prepared;
one containing demographic information and professional
role orientation data and the second deck containing inform-
ation on the bureaucratic dimensions. Later, a set of
school cards was made and this consolidated information on
the following variables: staff professional score, princi-
pal's professional score, school scores on observed bureau-
cratization, and school advisory authority scores.

A Fortran program for the IBM 7040 computer was used in the analysis of the data. This program was written by Walter Muir of the University of Alberta. The program consisted of seven types of analysis. They were as follows:

(1) Intercorrelation matrices for all teacher and principal variables.

(2) Partial correlations between staff professional scores, principals' professional scores and observed bureaucratic scores.

(3) One-way analysis of variance of (a) staff professional scores of all schools; (b) bureaucratic dimension scores of all schools, (c) bureaucratic dimension scores for different types of schools; (d) teachers' and principals' perceived desirability of bureaucratic dimensions on the basis of academic and professional background, and years of teaching experience; (e) teachers' and principals' professional scores on the basis of academic and professional background and years of teaching experience; and finally (f) teachers' and principals' professional scores on the basis of types of schools the teachers and principals are working in.

(4) Analysis of covariance of (a) professional scores and (b) the perceived desirability of the bureaucratic dimensions.

(5) t tests on the following variables: (a) difference in staff professional scores between the top and bottom quartile of the range of staff professional scores; (b) difference in advisory authority scores between high professional and low professional schools; (c) difference between male and female teachers and principals in professional scores and perceived desirability of the six bureaucratic dimensions; (d) difference between teachers and principals in professional scores and the perceived desirability of the six bureaucratic dimensions; and (e) difference between single and married teachers and principals on professional scores and the perceived desirability of the six bureaucratic dimensions.

(6) Multiple regression analysis of (a) the ob-
served bureaucratic scores for all schools and
(b) the advisory authority scores for all
schools.

(7) Newman-Keuls Test of Ordered Means on (a) tea-
chers' and principals' scores on the basis of
academic and professional preparation; (b) ob-
served bureaucratic scores between types of
schools.

V. SUMMARY

In this chapter the research methodology employed in
the study has been reviewed. As a result of the procedures
described, a number of instruments were developed or refined
to measure the variables under study. The sample chosen was
a stratified random sample of British Columbia schools. Fin-
ally, the statistical treatment of the data from these schools
has been outlined.

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CHAPTER IV

RESULTS, ANALYSIS, AND DISCUSSION:
PROFESSIONAL SCORES

I. INTRODUCTION

The central problem of this study was an investigation
of the relationships existing between the professional orien-
tation of teachers and principals in a sample of British Co-
lumbia schools and observed bureaucratization in these
schools. In addition, and examination was undertaken to de-
termine the degree of compatability existing between the pro-
fessional role orientations of teachers and principals and the
concept of the six dimensional bureaucratic model as "ideal"
for schools. Thirdly, an investigation was made of the dif-
ferences to be found in the use of advisory authority be-
tween high professional and low professional schools. Finally,
the variables of professionalism and bureaucracy were related
to certain demographic characteristics of the teachers and
principals participating in the study.

Chapter IV is devoted to a reporting, analysis, and dis-
cussion of results concerning professional scores. Chapter
V deals with observed bureaucratic score results; Chapter VI
with results concerning the perceived desirability of the bur-
eaucratic dimensions; and Chapter VII is concerned with the
advisory authority results.

II.   ANALYSIS OF PROFESSIONAL SCORES

Analysis of Staff Professional Scores

Findings. The first problem (Sub-Problem 1.0) to be in-
vestigated in this study asked the question, "Do schools dif-
fer in their degree of staff professionalism?" Flowing from
this problem was Hypothesis 1.0 which stated that schools
would differ in their staff professional scores. An analysis
of variance of all staff professional scores revealed that
schools did not differ significantly in their staff profes-
sional scores (Table IV). It should be noted that the result
approached significance and therefore a comparison was made
between those schools in the top quartile and bottom quar-
tile of the whole range of staff professional scores. A t
test of the significance of difference of means revealed a
significant t between the schools in the top quartile and the
bottom quartile (Table V).

Discussion. The Professional Role Orientation Scale
measures an individual's orientation to the teaching profes-
sion. For this reason one might expect to find this orien-
tation randomly distributed throughout the teaching popula-
tion in any province or state. To some extent this is true
in this study as the within-group variance is quite large
(MS = 39.89). Nevertheless, the between-school variance
(MS = 35.41) produces an F ratio which approaches signifi-

TABLE IV

ANALYSIS OF VARIANCE OF STAFF

PROFESSIONAL SCORES

(Schools = 29)

Source	Mean Square	df	F
Between	39.89	28	1.13
Within	35.41	459	

TABLE V

A COMPARISON OF STAFF PROFESSIONAL SCORES BETWEEN

THE TOP QUARTILE AND THE BOTTOM QUARTILE

OF STAFF PROFESSIONAL SCORES

(Top Quartile Schools = 7   Bottom Quartile Schools = 7)

	Means	S.D.	t
Staff Professional Scores: Top Quartile	58.40	5.82	
			4.84***
Staff Professional Scores: Bottom Quartile	54.39	6.00	

*** Significant at the .001 Level (one-tail)

cance and when the schools in the top and bottom quartiles
are compared, the differences in staff professional scores are
significant well beyond the .001 level. This result contrasts
sharply with Corwin's failure (1, p. 185) to find differences
in professionalism between schools but is supportive of the
results of the pilot study done in connection with this study
(ante, p. 81).

As the next analysis reveals, it should be noted that
high or low staff professional scores are not limited to any
one type of school nor are they related to the principals'
professional scores. The top quartile of staff professional
scores included elementary, elementary-junior secondary,
junior secondary, junior-senior secondary, and senior secon-
dary schools. The bottom quartile of staff professional
scores included elementary, elementary-junior secondary,
elementary-secondary, and junior secondary schools. In ad-
dition, both quartiles had schools from rural and urban areas.
Finally, there was discovered virtually no relationship (r =
- .017) between staff professional scores and principals'
professional scores.

Several conclusions may be suggested on the basis of these
findings. First of all, the usefulness of the Professional
Role Orientation Scale in discovering differences in pro-
fessionalism between schools is demonstrated. The second
conclusion that may be reached is that there are certain un-

identified factors operating to produce differences in staff professional scores between schools. One may only speculate at this point as to what these factors are. First of all, it may be suggested that certain schools tend to attract and retain professionally oriented teachers for a variety of reasons. Secondly, it may be suggested that a professional atmosphere develops in a school through an interactional process. Whyte (7, pp. 155-188) states that sentiments or attitudes can be differentially developed in an organization by differing patterns of interaction and activities. In addition, sentiments (as well as interactions and activities) are subject to influence from forces in the environment. In summary, it would appear that there are certain unidentified extra-organizational and intra-organizational variables operating to produce differences in staff professionalism between schools. Only further research can identify what these variables are and what contributions they make to a high or low staff professional score.

Analysis of Teachers' Professional Scores Between Types of Schools

Findings. There was no significant difference in teachers' professional scores between different types of schools (Table VI). A Newman-Keuls comparison between ordered means was applied to this data and no significant difference was found between any of these means.

TABLE VI

ANALYSIS OF VARIANCE OF TEACHERS' PROFESSIONAL

SCORES BETWEEN TYPES OF SCHOOLS

(Teachers = 488)

Type of School	N	Professional Scores Means	F
Elementary	237	56.39	
Elementary-Jr. Secondary	35	56.29	
Elementary- Secondary	28	55.61	
Junior Secondary	54	56.57	1.00
Junior-Senior Secondary	68	56.09	
Senior Secondary	66	57.96	

Discussion. The F ratio of exactly 1.00 indicates
clearly that no one type of school has a monopoly on profes-
sionally oriented teachers. One might have expected to find
larger differences between the types of schools that are pri-
marily rural (elementary-secondary, elementary-junior second-
ary) and the types of schools that are primarily urban (sen-
ior secondary, junior-senior secondary). The reason for
this lies in the fact that urban schools tend to attract the
more technically qualified teachers who presumably may be
more professionally oriented.

Analysis of Teachers' and Principals' Professional Scores on the Basis of Academic and Professional Preparation

Findings. A significant overall F ratio was found in
teachers' and principals' professional scores when they were
grouped according to the type of academic and professional
preparation they received (Table VII). A Newman-Keuls com-
parison of means failed to reveal significant differences
between any pair of means. This is inexplicable in view of
the significant overall F ratio. The failure of the Newman-
Keuls to reveal differences between at least the highest
mean and the lowest mean can be explained by the assumptions
underlying this test. The Newman-Keuls test assumes that
the number of observations is constant for each of the groups
being compared on the basis of their means. If the N's for
each group do not differ markedly from one another, the

TABLE VII

ANALYSIS OF VARIANCE OF PROFESSIONAL SCORES ON THE BASIS OF

ACADEMIC AND PROFESSIONAL PREPARATION (Teachers
and Principals)

(N = 517)

Group	N	Means	F
No University Degree	295	55.90	
B. Ed. (Elementary)	37	58.46	
B. Ed. (Secondary)	36	58.56	
Bachelor's degree in a faculty other than education plus one year teacher training	108	56.72	2.33*
Bachelor's degree in a faculty other than education plus old (postgraduate) B. Ed.	25	56.32	
Master of Education	16	56.44	

* Significant at the .05 Level

harmonic mean of the N's for all groups is used. If, however, the N's differ considerably from group to group, the results of the comparison of means are distorted. The general effect is for significant values to be masked and for only large differences between means to show (6, pp. 101-102).

Discussion. The highest professional scores were obtained by those teachers who held Bachelor of Education degrees (Elementary or Secondary). This result is supported to some extent by the pilot study results which showed that the Bachelor of Education group in Alberta had higher professional scores than any other group except two.

The finding that a professional preparatory program which involves the student in the field of education study from the outset of his university career is a program more likely to result in the development of professional attitudes than any other type of professional preparation program appended to a liberal arts, science or other faculty program is supported by the work of Ingram (3), who investigated member commitment to a teachers' professional association (The Alberta Teachers' Association). Ingram found that teachers whose first degree was the Bachelor of Education were significantly more committed ($p < .01$) to the association's officers, the association as a whole and in their total commitment scores. The total commitment score denotes the total attitude of favorability towards the teachers' association--its over-all leadership,

program, policies and goals. Numerous writers, particularly Greenwood (2) have stressed the importance of an orientation to one's professional association as an important attribute of professionalism.

In both the pilot study sample and the major study sample the lowest professional scores were obtained by those teachers with no university degree. One final comment should be made on these results. In the pilot study done in Alberta schools, teachers with Master's degrees in education had a mean professional score of 60.17; whereas in British Columbia this same Master's group had only a mean of 56.44. This difference must be interpeted cautiously however, as the N's in both cases are small.

Analysis of Professional Scores Between Teachers and Principals

Findings. No significant difference was found in professional scores between teachers and principals (Table VIII).

Discussion. Undoubtedly the validity of the comparison between teachers and principals can be questioned as the comparison being made is on the basis of each group's orientation to the teaching profession and its norms. Other facets of a principal's orientation, for example, to administration as a profession, are omitted. Nevertheless, the finding is interesting as it contradicts certain other findings such as those of Ingram (3, pp. 149-152) who found principals more commit-

TABLE VIII

A COMPARISON OF MEANS ON PROFESSIONAL SCORES

BETWEEN TEACHERS AND PRINCIPALS

(Teachers = 461; Principals = 29)

	Means	S.D.	t
Professional Scores:			
Teachers	56.62	5.94	
			.883
Principals	55.62	5.37	

ted to a teachers' association than were teachers. It should
be noted, however, that the Professional Role Orientation
Scale measures a broader spectrum of professional orientation
which not only includes orientation to one's professional col-
leagues, but also client orientation, belief in competency
based on a monopoly of knowledge, and a desire for decision-
making and control over one's work.

Analysis of Teachers' and Principals' Professional Scores on the Basis of Other Selected Demographic Variables

Findings. The results of an analysis of covariance
showed no differences in professional scores between single
males, married males, single females, and married females;
when the effects of years of teaching experience were con-
trolled (Table IX).

Discussion. The fact that no significant overall dif-
ference was found in the different groups' professional
scores is of considerable interest. This finding is sup-
ported by the work of Mason, Dressel and Bain (4) who com-
pared the occupational values of beginning teachers with
those held by college students who were planning to enter
a variety of occupations. In many ways, occupational values
are akin to role orientations. Mason, Dressel, and Bain
found that beginning teachers differed from college stu-
dents in that they were characterized by their higher peo-
ple-oriented values, the higher value they assigned to

TABLE IX

ANALYSIS OF COVARIANCE OF TEACHERS' AND PRINCIPALS' PROFESSIONAL SCORES BASED ON SEX AND MARITAL STATUS WITH YEARS OF TEACHING EXPERIENCE CONTROLLED

	N	Unadjusted Means	Adjusted Means
Single Males	41	56.39	56.79
Married Males	183	56.49	56.34
Single Females	99	55.55	55.75
Married Females	165	56.95	56.89

Source	df	MS	Adjusted F
Between	3	34.51	.84
Within	484	28.93	

leadership and creative opportunities and the lower values
they ascribed to money and social status. Although there
were differences in the occupational values of men and women
teachers (women were more people-oriented), these differences
were not great within the teaching group but were significant-
ly different from the other groups. Consequently, one may
conclude that teaching attracts both men and women of a simi-
lar type, that is, those individuals with "people-oriented"
values and "expressive" values; who, in addition, lay less
stress on "extrinsic reward" values (4, p. 380).

The most interesting result concerned the professional
scores of single and married female teachers. Married women
teachers had higher professional scores than did single wo-
men and this result was close to being statistically signi-
ficant (Table X). Mason, Dressel, and Bain (4, pp. 370-383)
have stressed the fact that beginning male teachers have a
greater career commitment than beginning women teachers.
Their studies reveal that for beginning women teachers
teaching is a contingent role rather than a dominant role.
That is, they will teach if they do not marry, until they
have children, or when their children are of school age. In
other words, their sex role is the dominant role and teaching
is a contingent role. It might be argued that this phenome-
non applies to single females but that the married women tea-
cher who keeps on in her occupation or returns to it is a
teacher who is strongly committed to teaching as a worthwhile

TABLE X

A COMPARISON OF MEANS ON PROFESSIONAL SCORES

BETWEEN SINGLE AND MARRIED

FEMALE TEACHERS

(Single = 99;   Married = 165)

	Means	S.D.	t
Professional Scores:			
Single	55.55	5.47	
			1.89
Married	56.95	6.06	

pursuit. In other words, she has solved the problems relating to her sex role and is genuinely more oriented to teaching than her single counterpart who has yet to face the conflicts pertaining to the integration of her sex and occupational roles.

The tentative conclusion may be reached that a new career pattern is emerging for women in teaching and this conclusion is supported by the Report of the Commission on Education in New Zealand which states:

> "Alone among the major professionals teaching recruits large numbers of women, in fact, a preponderance of them; but mainly through marriage, a very large percentage leave teaching within a few years, and only a small group continue teaching as their vocation in life, as is usual for men.... Only gradually in recent years, stimulated in no small degree by the teaching shortage, has there emerged a new professional pattern for women by which they are returning after family responsibilities have lessened to take up the practice of their profession, with the same seriousness of purpose and intention to complete a career as any other professional persons" (5, p. 574).

Analysis of Teachers' and Principals' Professional Scores on the Basis of Teaching Experience

Findings. No significant overall difference was found in professional scores when teachers and principals were grouped on the basis of years of teaching experience (Table XI.

Discussion. There was a slight tendency for the groups with the most experience (six or more years) to have higher

TABLE XI

ANALYSIS OF VARIANCE OF PROFESSIONAL SCORES

ON THE BASIS OF TEACHING EXPERIENCE

(Teachers and Principals)

(Respondents = 517)

Years of Experience	N	Professional Scores Means	F
1 Year	49	54.88	
2 Years	47	56.13	
3 Years	49	55.45	
4 Years	42	57.17	
5 Years	39	55.53	1.34
6 to 15 Years	160	57.11	
16 to 25 Years	89	56.73	
26 or More Years	42	57.17	

professional scores than groups with the least experience (three years or less).

III. SUMMARY

No overall significant difference was found in staff professional scores between schools but highly significant results were discovered between the top and bottom quartiles of schools on the whole range of staff professional schools. This points to the fact that high and low groups of schools differ in their staff professional scores. The probable reasons for these differences relate either to selecting-in and selecting-out factors operating on high and low professional teachers in schools or the interactional effect which operates in a school to produce either a high or a low professional climate.

No significant differences were found in teachers' professional scores between types of schools. A significant overall difference was found in teachers' and principals' professional scores on the basis of academic and professional preparation.

No significant differences in professional scores between single males, married males, single females and married females were found when years of teaching experience was controlled.

Finally, no statistically significant difference was found in teachers' and principals' professional scores when they were grouped on the basis of years of teaching experience.

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CHAPTER V

RESULTS, ANALYSIS, AND DISCUSSION: OBSERVED

BUREAUCRATIC SCORES

I. ANALYSIS OF OBSERVED BUREAUCRATIC SCORES

Intercorrelations Between Observed Bureaucratic Scores

In the Weberian concept of bureaucracy all bureaucra-
tic elements are interrelated and all are designed to pro-
mote rationality in an organization. For example, special-
ization is said to promote expertness; the authority struct-
ure and the existence of rules are assumed to make vital con-
tributions to the co-ordination of activities; and imperson-
ality is held to increase rationality. Weber states that
these characteristics, and, specifically, their combination
function to maximize organizational efficiency. In short,
all bureaucratic elements are positively related and all
correlate positively with organizational efficiency (15, pp.
110-113).

Udy (14, pp. 791-795) has questioned Weber's concept
of bureaucracy by showing that the model contained elements
that were not all interrelated. As a result of a study of
150 organizations, Udy came to the conclusion that the model
contained bureaucratic variables and rational variables.
The bureaucratic variables were positively related to one

another and the rational variables were positively related
to one another; but the bureaucratic and rational variable
groups were negatively related. This finding suggested to
this investigator that school organizations probably con-
tained bureaucratic and rational elements. Specifically, a
review of the hypotheses reveals that Scales I, III, IV,
and V are the bureaucratic elements and should be positively
related to one another; and Scales II and VI are the rational
elements and should be positively related to one another.
However, Scales I, III, IV and V should correlate negatively
with Scales II and VI.

Findings. The results in Table XII support the sug-
gested model of school organizations outlined above. Scales
I, III, IV, and V are positively and significantly interre-
lated as are Scales II and VI. Scales I, III, IV and V
are, however, negatively and significantly related to Scales
II and VI.

Discussion. These findings indicate clearly that the
bureaucratic dimensions associated with school organizations
are not all interrelated and form instead a pattern unique to
school organizations. The reason for this is perhaps found
in the nature of the school situation. Schools are complex
organizations which require a high degree of co-ordination
of efforts, but at the same time the work process involves a
large amount of inter-personal relations. Thus, the nature

TABLE XII

INTERCORRELATIONS BETWEEN OBSERVED BUREAUCRATIC

SCORES ON THE SCHOOL ORGANIZATIONAL

INVENTORY

(Respondents = 488)

Scale	I	II	III	IV	V	VI
I	1.000	-.333**	.595**	.760**	.413**	-.387**
II		1.000	-.198**	-.268**	-.179**	.380**
III			1.000	.562**	.322**	-.275**
IV				1.000	.436**	-.338**
V					1.000	-.250**
VI						1.000

** Significant at the .01 Level

of the work process and the amount of personal relations involved in the performance of job tasks are important determinants of the kind and degree of bureaucratization found in an organization. Not only is this true of organizations as a whole, but of departments within an organization. Hall (8, p. 33) found, in his study of commercial organizations that sales departments, when compared to other departments, differed in their bureaucratic structure. He suggests that the reason for this lies in the fact that these departments worked with people rather than things and thus exhibited different bureaucratic patterns.

Analysis of Observed Bureaucratic Scores Between Schools

Findings. The results shown in Table XIII indicate that there was a significant overall difference between schools on each of the six bureaucratic dimensions. In all cases, the difference was significant well beyond the .001 level. In short, schools differed widely in the extent to which they emphasized hierarchical authority, specialization, rules for incumbents, procedural specification, impersonality, and technical competence.

The Hartley F max Test revealed that the assumption of homogeneity of variance was not met in this sample of schools (Table XIV). Therefore, one might question the validity of the F ratios. A number of writers (6, 16)

TABLE XIII

ANALYSIS OF VARIANCE OF OBSERVED BUREAUCRATIC

SCORES BETWEEN SCHOOLS

(Schools = 29)

	Source	Mean Square	df	F
Scale I: Hierarchical Authority	Between	170.77	28	5.73***
	Within	29.82	459	
Scale II: Specialization	Between	76.25	28	6.17***
	Within	12.36	459	
Scale III: Rules for Incumbents	Between	107.71	28	5.25***
	Within	20.53	459	
Scale IV: Procedural Specification	Between	83.55	28	5.94***
	Within	14.06	459	
Scale V: Impersonality	Between	43.78	28	3.34***
	Within	13.12	459	
Scale VI: Technical Competence	Between	43.16	28	2.08***
	Within	20.80	459	

*** Significant at the .001 Level

TABLE XIV

HARTLEY F max TEST FOR HOMOGENITY OF VARIANCE

OF OBSERVED BUREAUCRATIC SCORES

(Schools = 29)

	Largest Variance	Smallest Variance	F max Ratio
Scale I: Hierarchical Authority	78.72	9.03	8.72**
Scale II: Specialization	30.65	4.03	7.61**
Scale III: Rules for Incumbents	57.36	9.75	5.88**
Scale IV: Procedural Specification	30.18	5.03	6.00**
Scale V: Impersonality	24.75	2.61	9.48**
Scale VI: Technical Competence	38.39	5.44	7.05**

** Significant at the .01 Level

have indicated, however, that the F test is fairly robust.
A clear explanation of the extent of robustness of the
F test is given by Keeping (10). He states that where em-
pirical testing has been done using non-normal populations,
the F test can be used without serious error even for con-
siderable variations from normality. The only time in which
care must be used in claiming significance for an F ratio
is when the probability is near the border-line, since on
the whole, non-normality tends to make the results look
more significant than they really are (10, p. 110). In
this case, where all the F ratios are highly significant
there appears to be no reason why the failure to meet the
assumption of homogenity of variance should call into ques-
tion the validity of the results.

Discussion. In discussing the above results, a com-
ment should be first made on the usefulness of the School
Organizational Inventory as an instrument to measure bur-
eaucratization in schools. The highly significant results
are probably, in some part, a credit to the ability of this
instrument to make discriminations on the concepts being
measured. The refinements that this instrument went through
as a result of the pilot study done in connection with this
study contributed in a large measure to the power of this
instrument.

Finally, the results confirm the general applicabili-
ty of the bureaucratic model to school organizations.

Analysis of Observed Bureaucratic Scores for Different
Types of Schools

Findings. An analysis of variance was made of the bur-
eaucratic scores for different types of schools found in
British Columbia. The six types of schools were as fol-
lows:

1. Elementary - Grades 1 - 7

2. Elementary-Junior Secondary - Grades 1 - 9

3. Elementary-Secondary - Grades 1 - 12

4. Junior Secondary - Grades 8 - 10

5. Junior-Senior Secondary - Grades 8 - 12

6. Senior Secondary - Grades 11 - 12

Significant overall F ratios were obtained on all six
bureaucratic dimensions on the basis of type of school (Ta-
ble XV). In addition, a Newman-Keuls comparison of means
revealed significant differences between means for certain
types of schools on all dimensions except Scale VI (tech-
nical competence). As has been pointed out earlier (ante,
p.101), the Newman-Keuls Test requires a fairly equal N
for all groups being compared and if this assumption is
not met, significant differences between means tend to be
obscured. For this reason no significant difference in
means was found between schools for Scale VI even though
the overall F ratio was significant. Consequently, the
table showing the results of the Newman-Keuls Test (Table XVI)

TABLE XV

ANALYSIS OF VARIANCE OF OBSERVED BUREAUCRATIC

SCORES BETWEEN TYPES OF SCHOOLS

(Respondents = 488; Schools = 29)

Type of School	N	Scale I: Respondents' Means	F	Scale II: Means	F	Scale III: Means	F
Elementary	237	23.28		21.89		18.60	
Elementary- Jr. Secondary	35	23.23		22.46		17.11	
Elementary- Secondary	28	22.64		23.86		16.21	
			4.03***		7.19***		3.37**
Junior- Secondary	54	22.22		25.22		20.09	
Junior-Senior Seondary	68	22.32		22.87		17.46	
Senior Secondary	66	26.33		22.44		18.67	

*** Significant at the .001 Level

 ** Significant at the .01 Level

TABLE XV (continued)

ANALYSIS OF VARIANCE OF OBSERVED BUREAUCRATIC

SCORES BETWEEN TYPES OF SCHOOLS

(Respondents = 488; Schools = 29)

Type of School	Respondents N	Scale IV: Means	F	Scale V: Means	F	Scale VI: Means	F
Elementary	237	16.67		21.45		28.27	
Elementary- Jr. Secondary	35	16.77		20.69		29.40	
Elementary- Secondary	28	17.04		21.46		29.11	
			5.34***		7.98***		2.36*
Junior- Secondary	54	16.57		21.43		29.43	
Junior-Senior Secondary	68	16.13		21.69		29.27	
Senior Secondary	66	19.38		24.47		27.15	

*** Significant at the .001 Level

* Significant at the .05 Level

TABLE XVI

NEWMAN-KEULS COMPARISON OF MEANS ON OBSERVED

BUREAUCRATIC SCORES BETWEEN TYPES

OF SCHOOLS

(Respondents = 488)

Scale I (Hierarchical Authority)

	Elem.	Elem. Jr.Sec.	Elem. Sec.	Jr. Sec.	Jr.-Sr. Sec.	Sr. Sec.
Elem.						
Elem. Jr. Sec.						
Elem. Sec.						*
Jr. Sec.						**
Jr.-Sr. Sec.						**
Sr. Sec.						

** Significant at the .01 Level

 * Significant at the .05 Level

TABLE XVI (Continued)

NEWMAN-KEULS COMPARISON OF MEANS ON OBSERVED

BUREAUCRATIC SCORES BETWEEN TYPES

OF SCHOOLS

(Respondents = 488)

Scale II (Specialization)

	Elem.	Elem. Jr.Sec.	Elem. Sec.	Jr. Sec.	Jr.-Sr. Sec.	Sr. Sec.
Elem.				**		
Elem. Jr. Sec.				**		
Elem. Sec.						
Jr. Sec.					*	**
Jr.-Sr. Sec.						
Sr. Sec.						

** Significant at the .01 Level

 * Significant at the .05 Level

TABLE XVI (Continued)

NEWMAN-KEULS COMPARISON OF MEANS ON OBSERVED

BUREAUCRATIC SCORES BETWEEN TYPES

OF SCHOOLS

(Respondents = 488)

Scale III (Rules for Incumbents)

	Elem.	Elem. Jr.Sec.	Elem. Sec.	Jr. Sec.	Jr.-Sr. Sec.	Sr. Sec.
Elem						
Elem. Jr.Sec.				*		
Elem. Sec.				**		
Jr. Sec.					*	
Jr.-Sr. Sec.						
Sr. Sec.						

** Significant at the .01 Level

* Significant at the .05 Level

TABLE XVI (Continued)

NEWMAN-KEULS COMPARISON OF MEANS ON OBSERVED

BUREAUCRATIC SCORES BETWEEN TYPES

OF SCHOOLS

(Respondents = 488)

Scale IV (Procedural Specification)

	Elem.	Elem. Jr.Sec.	Elem. Sec.	Jr. Sec.	Jr.-Sr. Sec.	Sr. Sec.
Elem.						*
Elem. Jr.Sec.						*
Elem. Sec.						
Jr. Sec.						**
Jr.-Sr. Sec.						**
Sr. Sec.						

** Significant at the .01 Level

 * Significant at the .05 Level

TABLE XVI (Continued)

NEWMAN-KEULS COMPARISON OF MEANS ON OBSERVED

BUREAUCRATIC SCORES BETWEEN TYPES

OF SCHOOLS

(Respondents = 488)

Scale V (Impersonality)

	Elem.	Elem. Jr.Sec.	Elem. Sec.	Jr. Sec.	Jr.-Sr. Sec.	Sr. Sec.
Elem.						**
Elem. Jr.Sec.						**
Elem. Sec.						**
Jr. Sec.						**
Jr.-Sr. Sec.						**
Sr. Sec.						

** Significant at the .01 Level

shows only gross differences and other differences that may exist are being masked.

Discussion. There is a paucity of research and theory to explain why different types of schools should differ in their bureaucratic dimensions. One may only speculate why this might be so until such time as further research is done on this topic. However, certain findings with regard to size of school and organizational climate in schools provide some insights that may be useful. In this analysis, the strongest point that comes through is that the senior secondary schools score the highest on the bureaucratic dimensions of hierarchical authority, procedural specification, and impersonality. They score the second highest on rules for incumbents. It should also be noted that the senior secondary schools are the largest schools in the sample.

In his study of organizational climate in Alberta schools, Andrews (3) found that school size was positively and significantly related to Disengagement, Hindrance, and Production Emphasis, and to a Closed Climate in the school. A close examination of these concepts reveals that, with the exception of Disengagement, the concepts of Hindrance, Production Emphasis and Closed Climate bear a close resemblance to certain bureaucratic dimensions utilized in this study. For example, Hindrance refers to:

"the teachers' feeling that the principal burdens
them with routine duties, committee demands, and
other requirements which the teachers construe as
unnecessary busy-work. The teachers perceive the
principal is hindering rather than facilitating
their work" (9, p. 29).

Production Emphasis refers to:

"behavior by the principal which is character-
ized by close supervision of the staff. He is
highly directive, and plays the role of a "straw
boss." His communication tends to go in only
one direction, and he is not sensitive to feed-
back from the staff" (9, p. 31).

Both high Hindrance and high Production Emphasis con-

tribute to a Closed Climate. In short, there appear to

be similarities between a Closed school climate and high

bureaucratic scores on Scales I, III, IV, and V. This pat-

tern is found in large schools and the largest schools in

this study were the senior secondary schools. One must

avoid the temptation that size is the primary factor in

determining bureaucratization. This is not borne out in

this research (infra, p. 137) and the more likely reason

for finding high bureaucratic scores on Scales I, III, IV

and V in senior secondary schools lies in the nature of this

type of school, regardless of its size. These schools are

usually composite departmentalized schools which offer a

wide variety of programs. This complexity gives rise to

the apparent need for extensive hierarchical authority

structures, (principal, multiple vice-principals, and

department heads). In addition, school departmentalization

probably results in an increase of procedural specification and increased impersonal relationships between the teachers and those in the authority structure.

II. RELATIONSHIP BETWEEN OBSERVED BUREAUCRATIC SCORES AND PROFESSIONAL SCORES

Relationships Between Staff Professional Scores, Principals' Professional Scores, School Size and Bureaucratic Scores

Findings. The purpose of Sub-Problem 2.0 was to investigate whether the bureaucratic structure of schools was different in schools with a high staff professional score as compared to schools with a low staff professional score. It was hypothesized (Hypotheses 2.1 to 2.6) that there would be an inverse relationship between staff professional scores and observed bureaucratic scores on Scale I (hierarchical authority), Scale III (rules for incumbents), Scale IV procedural specification), and Scale V (impersonality). On the other hand, it was hypothesized that there would be a positive relationship between staff professional scores and observed bureaucratic scores on the dimension of Scale II (specialization) and Scale VI (technical competence). In testing these hypotheses (2.1 to 2.6) the effects of principals' professional scores and school size scores were partialled out.

Similarly, Sub-Problem 3.0 was an investigation of whether the bureaucratic structure of schools was different in

schools where principals had high professional scores as compared to schools where the principals had low professional scores. Specifically, it was hypothesized (Hypotheses 3.0 to 3.6) that there would be an inverse relationship between principals' professional scores and observed bureaucratic scores on Scales I, III, IV, and V; and a positive relationship between principals' professional scores and observed bureaucratic scores on Scales II and VI. In testing these hypotheses (3.1 to 3.6), the effects of staff professional scores and school size were partialled out.

Table XVII shows the relationships between staff professional scores and bureaucratic scores, and Table XVIII shows the same relationships with the effects of principals' professional scores and school size partialled out. None of the correlations is significant but the direction of the hypotheses is supported in all but one case (Scale VI). That is, schools with high staff professional scores tend to be characterized by a de-emphasis of hierarchical authority, rule for incumbents, procedural specification, impersonality and by an emphasis on specialization.

The relationships between principals' professional scores and observed bureaucratic scores are also shown in Tables XVII and XVIII. None of the relationships is significant and only in three of the six cases (Scales II, III, and VI) is the direction of the hypotheses supported.

TABLE XVII

CORRELATION OF STAFF PROFESSIONAL SCORES, PRINCIPALS' PROFESSIONAL

SCORES AND SCHOOL SIZE SCORES WITH OBSERVED

BUREAUCRATIC SCORES

(Schools = 29)

	Correlation With Staff Professional Scores	Correlation With Principals' Professional Scores	Correlation With School Size Scores
Scale I (Hierarchical Authority)	-.137	.155	.045
Scale II (Specialization)	.195	.038	.097
Scale III (Rules for Incumbents)	-.102	-.080	-.073
Scale IV (Procedural Specification)	-.237	.064	.159
Scale V (Impersonality)	-.124	.185	.254
Scale VI (Technical Competence)	-.189	.176	.135

TABLE XVIII

PARTIAL CORRELATIONS OF STAFF PROFESSIONAL SCORES AND
PRINCIPALS' PROFESSIONAL SCORES WITH OBSERVED
BUREAUCRATIC SCORES

(Schools = 29)

	Correlation With Staff Professional Scores with the Effects of School Size Scores and Principals' Professional Scores Partialled Out	Correlation With Principals' Professional Scores With Effects of School Size Scores and Staff Professional Scores Partialled Out
Scale I (Hierarchical Authority)	-.15	.16
Scale II (Specialization)	.20	.03
Scale III (Rules for Incumbents)	-.11	-.09
Scale IV (Procedural Specification)	-.23	.04
Scale V (Impersonality)	-.12	.16
Scale VI (Technical Competence)	-.18	.16

Table XVII also shows the relationships between school size and observed bureaucratization. No significant relationships were discovered between school size and observed bureaucratic scores.

The hypotheses tested (Hypotheses 2.1 to 2.6 and 3.1 to 3.6) in this part of the study were all predicated on the theory that staff professionalism, principals' professionalism and school size were key determinants of a school's bureaucratic structure. In order to test the relative predictive ability of each of these factors in determining the degree and kind of bureaucratization found in the schools, a multiple stepwise regression was performed. The results of this analysis are shown in Table XIX. For each of the six bureaucratic dimensions no one predictor nor any combination of predictors reaches statistical significance, although significance is approached in two cases (Scales IV and V).

Discussion. As noted earlier, the theory underlying the testing of the hypotheses in this part of the study was based on the premise that staff professional scores, principals' professional scores and school size scores would serve as good predictors of observed bureaucratization in school organizations.

School size proved not to be related significantly with bureaucratization in schools. This finding contradicts the

TABLE XIX

MULTIPLE REGRESSION PREDICTION OF OBSERVED BUREAUCRATIC

SCORES BY STAFF PROFESSIONAL SCORES, PRINCIPALS'

PROFESSIONAL SCORES AND SCHOOL SIZE SCORES

(Schools = 29)

Bureaucratic Dimension	Predictors	Correlation Between Bureaucratic Dimension and Predictor	% of Variation Accounted for Stepwise	Cumulative Total % of Variation	Multiple Correlation R
Scale I	Principals' Prof. Scores	.15	2.33	2.33	.15
Scale I	Staff Prof. Scores	-.14	1.81	4.14	.20
Scale I	School Size Scores	.05	.15	4.29	.21
Scale II	Staff Prof. Scores	.20	3.82	3.82	.20
Scale II	School Size Scores	.10	.64	4.46	.21
Scale II	Principals' Prof. Scores	.04	.09	4.55	.21
Scale III	Staff Prof. Scores	-.10	1.04	1.04	.10
Scale III	Principals' Prof. Scores	-.08	.67	1.71	.13
Scale III	School Size Scores	-.07	.29	2.00	.14

TABLE XIX (Continued)

MULTIPLE REGRESSION PREDICTION OF OBSERVED BUREAUCRATIC

SCORES BY STAFF PROFESSIONAL SCORES, PRINCIPALS'

PROFESSIONAL SCORES AND SCHOOL SIZE SCORES

(Schools = 29)

Bureaucratic Dimension	Predictors	Correlation Between Bureaucratic Dimension and Predictor	% of Variation Accounted for Stepwise	Cumulative Total % of Variation	Multiple Correlation R
Scale IV	Staff Prof. Scores	-.24	5.61	5.61	.24
Scale IV	School Size Scores	.16	3.26	8.87	.30
Scale IV	Principals' Prof. Scores	.06	.13	9.00	.30
Scale V	School Size Scores	.25	6.47	6.47	.25
Scale V	Principals' Prof. Scores	.19	2.35	8.82	.30
Scale V	Staff Prof. Scores	-.12	2.04	10.86	.33
Scale VI	Staff Prof. Scores	-.19	3.60	3.60	.19
Scale VI	Principals' Prof. Scores	.18	3.00	6.60	.26
Scale VI	School Size Scores	.14	1.71	8.31	.29

findings of MacKay (11, pp. 35-87) who found that school size was significantly related to Scale I (hierarchical authority), Scale III (rules for incumbents) and Scale IV (procedural specification). It also contradicts the findings of Anderson (1, p. 105) who discovered that the amount of rules in a school was significantly related to the size of the school as measured by its student population.

The theory that staff professional scores would be related to a de-emphasis of hierarchical authority, rules for incumbents, procedural specification, and impersonality was generally supported although the results were not statistically significant. Furthermore, staff professional scores were positively related to an emphasis on specialization. The one anomaly in the testing of Hypotheses 2.0 to 2.6 was the inverse relationship (though not significant) between staff professionalism and an emphasis on technical competence in schools. The most plausible explanation for this result is that there is a difference between competence as viewed from a _professional_ point of view and competence as viewed from a _bureaucratic_ point of view. Bureaucratic competence, according to Weber, lays a stress on technical qualifications, promotion based largely on seniority, and constant evaluation of subordinates' performances by their superordinates (15, pp. 196-204). Professional competence places an emphasis on technical qualifications also, but much less

stress on seniority and on evaluation by superordinates.

The competent professional is one who possesses superior expertise in terms of his professional collegial group's standards. In addition, it may be argued that the more committed a professional is to his professional skills, the less committed he will be to a bureaucratic view of competence which envisages a regulated career advancement pattern based on seniority and judgements of superiors. A strong commitment to one's professional skills thus comes into conflict with aspirations for advancement. For most professionals their career is a terminal occupation and the more committed a professional is to his skills the less attractive will he find the formal reward of promotion that removes him from his professional work. This is especially true in an occupation like teaching where there is little opportunity for upward career mobility unless one forsakes the area for which one was trained and enters administration. This theory has been tested in nursing which, like teaching, provides limited career mobility in the professional area without forsaking it to enter nursing teaching or administration. Bennis (5, pp. 481-500) found that the more oriented a nurse was to her professional skills, the more she was oriented to winning the favor of her professional colleagues and the less oriented she was to the organization and its promise of formal rewards, such as promotion. In summary, it seems reasonable to suggest that schools with high staff professional

scores emphasize less the bureaucratic concept of technical competence but instead are characterized by a professional view of competence where one's commitment to professional skills and to one's collegial group are of dominant importance.

The results showing the relationships between principals' professional scores and observed bureaucratic scores are rather inconclusive. Three of the correlations are of a zero range order and of the three others none approaches statistical significance. A major limitation of this study is that the Professional Role Orientation Scale measures only the principal's orientation to the teaching profession and does not examine other orientations he possesses, for example, orientation to administration as a career, or orientation to his superordinates. One might expect, however, that principals who are strongly oriented to the norms of the teaching profession would design structures and practise behaviors compatible with the desires of their teachers. It was found that principals with high professional scores emphasized hierarchical authority, impersonality, and technical competence. The probable explanation for this lies in the fact that, since these principals are oriented to the teaching profession, they probably perceive themselves to be competent in the teacher's professional sphere. Therefore, they reserve to themselves the right to make decisions on

many matters of professional concern that would ordinarily
beleft to the teachers. They also probably employ more di-
rect supervisory behaviors than do those principals who might
perceive themselves to be less competent to judge teachers'
performances. Certainly, more direct supervision would give
rise to more impersonality and hierarchical authority. The
fact that principals do employ differential supervisory prac-
tices has been demonstrated by Trask (13) who found that
principals who supervised the most were those who perceived
themselves to be competent to judge the professional activity
being observed.

The multiple regression prediction of bureaucratic scores
demonstrated that staff professionalism was the best predictor
of bureaucratic scores on Scale II, Scale III, Scale IV, and
Scale V and the principal's professional score was the best
predictor for Scale I. These findings point out the impor-
tance of the staff in determining the nature of the school
organization. Writers in the field of administration, from
Barnard (4, pp. 114-123) to Anderson (2, pp. 28-30) have
stressed the importance of the organization's members in de-
termining organization patterns. The work group is often a
contervailing force oriented in opposition to the administra-
tion (2, p. 28). Through their co-operative efforts, the work
group is thus able to determine in a large part the nature of
the organization's structure and its operational behavior.

Moore (12, p. 54) has pointed out that, although a person may have little or only a potentially disruptive effect on the formal structure of an organization, every complex organization will display evidence of changes growing out of individual interaction. The situation is relatively simple. Organizations provide the necessary condition for the formation of informal groups. These groups may serve or hinder the mission of the official organization that provides the conditions for their existence, or may in fact be irrelevant. But any influence at all is very likely to induce change in the formal structure, in its rules and procedures and in role requirements, in order to combat negative influences and to incorporate positive ones. Thus the individual and his "informal" interaction patterns may in fact be a source of change in structures where the individual seemingly counts for very little.

Nevertheless, it must be pointed out that none of the three predictors nor any combination of the three used in this study was able to produce significant relationships between the predictors and the criterion variables, that is, the bureaucratic dimensions. This points out very clearly that there are other factors operating to produce the wide differences in bureaucratization that are found in schools. Some of these influences are probably extra-organizational and others are probably intra-organizational. Only further research can reveal these other predictors but some useful

speculation as to what they may be can be put forward at this point.

Oswald Hall (7, pp. 110-111) has pointed out that the school operates within the framework of larger bureaucracies. The school district is a bureaucracy with its attendant officials, rules, et cetera; each contributing in some way to the degree and kind of bureaucratization found in each school in the district. In addition, all schools in all districts are influenced by the bureaucracy of the provincial department of education. Its influence is undoubtedly wide as witnessed by the many bureaucratic directives issuing from provincial departments. Further research should be done to determine the extent to which the school district and the provincial departmental bureaucracies influence the bureaucratic structures in individual schools. In addition to these two extra-school organizational variables, other factors that may serve as useful predictors of bureaucratization in individual schools may be certain demographic variables. The socio-economic status of the area in which the school is located is one variable that comes to mind quickly. Anderson, in his study of bureaucratic rules in school organizations, found that schools located in lower-lower class areas were significantly higher on rules than schools in upper-lower class areas which, in turn, were higher than schools in middle class areas (1, p. 104). This finding is attributable to the

type of student clientele served in the different class areas.
Anderson suggests that the heterogenity of the student body
in the lower-lower class schools substantially increases the
complexity of administration and teaching in these schools.
In addition, there is an element of urgency attached to lower-
lower class schools which is absent from upper-lower or mid-
dle class schools. High incidence of dropouts, discipline
cases, high rates of absenteeism, home problems and a higher
rate of emotionally disturbed, all add up to create a cri-
tical situation. To cope with these problems numerous rules
are devised.

Another possible intra-organizational variable operating
to produce differences in bureaucratization between schools
is the level of competence possessed by the teaching staff in
a school. Anderson (1, p. 107-108) found that rules were
numerous in schools where teacher competence was low; and
rules were less numerous where teacher competence was high.

III. SUMMARY

The central theory being tested in this section of the
study was that staff professional scores, principals' pro-
fessional scores and school size scores were important deter-
minants of the degree and kind of bureaucratization found in
school organizations. Specifically, high staff professional
scores would be associated with a de-emphasis of Scales I, III,
IV and V and an emphasis on Scales II and VI. With the ex-

ception of Scale VI, the direction of the hypotheses was sup-
ported but the results were not statistically significant.

It was also hypothesized that high principals' profes-
sional scores would be associated with a de-emphasis of
Scales I, III, IV and V and an emphasis of Scales II and VI.
The results of these hypotheses were not statistically sig-
nificant.

School size was not significantly related to any of the
six bureaucratic dimensions.

The best predictor of a school's bureaucratic structure
was the extent of staff professionalism (Scales II, III, IV
and VI). School size was the best predictor of Scale V and
the principal's professional score was the best predictor of
Scale I.

No one nor any combination of these three predictors
(staff professional score, principal's professional score,
school size score) accounted for more than 11% of the var-
iation in the bureaucratic scores. It would appear that there
are other extra-organizational and intra-organizational fac-
tors operating to influence the degree and kind of bureaucra-
tization to be found in schools that still have to be iden-
tified.

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RESULTS, ANALYSIS, AND DISCUSSION: PERCEIVED

DESIRABILITY OF THE BUREAUCRATIC

DIMENSIONS

I. INTRODUCTION

This part of the study investigated the extent of com-
patability and incompatability existing between the profes-
sional role orientations of teachers and principals and the
six bureaucratic dimensions as being desirable in an "ideal"
school. In addition, the perceived desirability of the six
bureaucratic dimensions was related to certain demographic
variables of the teachers and principals participating in
the study.

II. RELATIONSHIPS BETWEEN PROFESSIONAL SCORES
AND THE PERCEIVED DESIRABILITY OF
THE BUREAUCRATIC DIMENSIONS

<u>Relationships Between Teachers' Professional Scores, Prin-
cipals' Professional Scores and the Perceived Desirability
of the Bureaucratic Dimensions</u>

<u>Findings</u>. Hypotheses 4.0 to 4.6 stated that there
would be an inverse relationship between teachers' profes-
sional scores and the perceived desirability of Scale I (hier-
archical authority), Scale III (rules for incumbents), Scale
IV (procedural specification), and Scale V (impersonality);

and a positive relationship between teachers' professional
scores and the perceived desirability of Scale II (speciali-
zation and Scale VI (technical competence). These bureau-
cratic dimensions were defined as follows:

Scale I (Hierarchical Authority)

--A good school will have well-defined differen-
   ces between teachers and administrators insofar
   as authority and status are concerned.

Scale II (Specialization)

--A good secondary school will have each of its
   staff members assigned to the teaching of one
   or two specialized subjects based upon their
   specialized training and experience; and a good
   elementary school will have each of its staff
   members assigned to teaching in a particular
   grade level (primary or intermediate) based
   upon their specialized training and experience.

Scale III (Rules for Incumbents)

--A good school will have a system of written
   rules for teachers designed to cover most sit-
   uations.

Scale IV (Procedural Specification)

--A good school will have a well-defined system
   of standard procedures for the guidance of staff
   members in their classroom teaching and other
   school work.

Scale V (Impersonality)

--A good school will operate on the basis that
   every person in the organization (administrators,
   teachers, pupils, and parents) is to receive ex-
   actly the same kind of treatment, and that no
   personal feelings should have an effect on working
   relationships between teachers, administrators,
   students, and parents.

Scale VI (Technical Competence)

--A good school appoints and promotes staff members
on the basis of professional competence.

There was a positive and significant relationship be-
tween teachers' professional scores and the perceived desir-
ability of Scale II and Scale VI (Table XX). High profes-
sional teachers thus desired an emphasis on specialization
and technical competence in schools. Hypotheses 5.2 and
5.6 are consequently supported. This supports the theory
that these characteristics are considered rational char-
acteristics (in Udy's terms) by high professionals in
school organizations.

No significant relationships were discovered between
teachers' professional scores and the desirability of
Scale I (hierarchical authority), Scale III (rules for in-
cumbents), and Scale IV (procedural specification) (Table
XX). A significant and positive relationship between tea-
chers' professional scores and the desirability of Scale
V (impersonality) was discovered. This was in the reverse
direction to that hypothesized.

Hypotheses 5.1 to 5.6 stated that there would be an
inverse relationship between principals' professional scores
and the perceived desirability of Scale I, Scale III, Scale
IV, and Scale V; and a positive relationship between prin-
cipals' professional scores and the perceived desirability

TABLE XX

CORRELATION OF TEACHERS' PROFESSIONAL SCORES AND

PRINCIPALS' PROFESSIONAL SCORES WITH THE

PERCEIVED DESIRABILITY OF BUREAUCRATIC

DIMENSIONS

(Teachers = 459; Principals = 29)

Bureaucratic Dimension	Correlation With Teachers' Professional Scores	Correlation With Principals' Professional Scores
Scale I: Hierarchical Authority	-.008	-.441**
Scale II: Specialization	.179**	.231
Scale III: Rules for Incumbents:	.072	-.489**
Scale IV: Procedural Specification:	-.047	-.398*
Scale V: Impersonality	.175**	-.066
Scale VI: Technical Competence	.280**	.314*

** Significant at the .01 Level

 * Significant at the .05 Level

of Scale II and Scale VI. In all cases the direction of the hypotheses was supported (Table XX); and positive and significant relationships were discovered between principals' professional scores and the perceived desirability of Scale II and Scale VI. In addition, negative and significant relationships were discovered between principals' professional scores and the perceived desirability of Scale I, III, and IV. Consequently, hypotheses 5.1, 5.3, 5.4 and 5.6 were supported. In the case of hypotheses 5.2 and 5.5, the results were in the right direction and in one case (Hypothesis 5.2) the result approached statistical significance.

A comparison of the means for teachers and principals on the perceived desirability of the six bureaucratic dimensions revealed statistically significant differences on Scale II, Scale III, Scale IV, and Scale V. Teachers desired significantly more specialization, rules for incumbents, procedural specification, and impersonality than did principals. They also desired more hierarchical authority and less technical competence but the results for these two dimensions were not statistically significant (Table XXI).

Discussion. The relationships between teachers' professional scores and the perceived desirability of the six bureaucratic dimensions are of considerable interest. The positive and significant relationships between professional scores and the desire for Scale II and Scale VI are not too

TABLE XXI

A COMPARISON OF TEACHERS' AND PRINCIPALS' MEANS

ON THE PERCEIVED DESIRABILITY OF THE

BUREAUCRATIC DIMENSIONS

(Teachers = 461; Principals = 29)

	Means	S.D.	t
Scale I:			
Teachers	3.06	1.19	
Principals	2.76	1.28	1.30
Scale II:			
Teachers	4.32	.73	
Principals	4.00	.95	2.26*
Scale III:			
Teachers	3.28	1.09	
Principals	2.83	1.23	2.16*
Scale IV:			
Teachers	3.34	1.08	
Principals	2.93	1.17	1.96*
Scale V:			
Teachers	3.54	1.24	
Principals	2.97	1.50	2.41*
Scale VI:			
Teachers	4.34	.70	
Principals	4.52	.50	1.31

* Significant at the .05 Level

difficult to explain. Professionalism is characterized by expertise in a circumscribed sphere of activity and to most teachers this means a particular grade level or subject field. Similarly, a high professional orientation is logically associated with the avoidance of nepotistic practices and an emphasis on the recognition of professional competence as the basic criterion in the hiring and promotion of personnel.

Considerable confusion surrounds the finding concerning high professional scores being associated with a desire for impersonality. This confusion is well exemplified by the ambivalent statements of many writers on the subject of professionalism and impersonality. This diversity of opinion on the question of a professional orientation and its relationship to impersonality has been discussed earlier in this study (ante, pp. 31). Undoubtedly, part of the confusion results from the fact that impersonality, in Weberian terms, is a complex concept. Impersonality relates to relationships between superordinates and subordinates, the practitioner and his clients, and to relationships between members of the organization at similar levels on the organizational hierarchical ladder. Consequently, when one discusses impersonality a careful distinction must be made as to what group impersonal or personal relationships are appropriate. In schools, it is quite conceivable that teachers dislike

impersonality between themselves and their principal, but that they prefer that parents and pupils are treated in an impersonal manner. All teachers are thus faced with the necessity of deciding to what degree impersonality is desirable in terms of their relationships with: (a) principals, (b) their teacher colleagues, (c) pupils and (d) parents. There is evidence to indicate that teachers dislike impersonality between teachers and principals. Andrews (1, p. 27) found a negative significant relationship between teacher satisfaction and aloofness on the part of the principal. On the other hand, there is some reason to believe that teachers want impersonality in their dealings with pupils and parents. As Hall (5, pp. 110-111) has pointed out, the relation of the teacher to the pupil client is a peculiar one. Pupils do not come to the teacher as autonomous clients in need of help. They are sent to school by parents, and the exchange which goes on involves both the student and one or both parents. This triadic relationship complicates the professional relationship of teacher and pupil in manifold ways. The parent may attempt to usurp the position of teacher; he may ally himself with the teacher against the student; he may ally himself firmly with the student against the teacher; or the two parents may split into separate camps and further complicate the professional role of the teacher. In general, one can say that the existence of any third party in the practitioner-client relationship poses

very real difficulties for the professional. For the teacher, this danger is endemic.

Furthermore, the parents may intervene at strategic points other than that of the teacher-student relationship. The parent may go to the principal; he may go to the superintendent; or he may go to the school board. Thus all teachers are faced with an awareness of the varied ways in which parents can intervene in the interchange between teachers and their student clients. Because of the inherent danger to the teacher in this triadic relationship it is perhaps easier to understand why teachers prefer that pupils and parents are treated in an impersonal manner. To apply impersonal treatment to all pupils and parents reduces for the teacher the threat of charges of favoritism. This teacher commitment to impersonality in the treatment of parents and pupils is in many ways a disturbing situation as the essence of a professional relationship is that the professional resists the use of categorization in the handling of his clients' problems. Nevertheless, impersonality is strongly associated with an orientation to the teaching profession and the reasons for this probably relate to the peculiar triadic nature of the teacher-client relationship.

No significant results were found between professional scores of teachers and a desire for hierarchical authority, rules for incumbents, and procedural specification.

This is a unanticipated result as one would expect that a
high professional orientation would be associated with a de-
sire for a de-emphasis of hierarchical authority, fewer rules,
and less procedural specification as professionals are com-
mitted to the ideal of autonomy in their professional pursuits
and to the ideal of collegial relationships. Apparently, this
is not true of teachers and the reasons for it not being so
are difficult to ascertain. One suggestion that has been put
forth is that teachers are not recruited from professional
families, but from lower middle class and working class fam-
ilies (7, p. 129), and consequently have grown up in class
structures in which compliance and deference to superiors
are dominant necessities for economic survival. Of far
greater importance in explaining this lack of stress on in-
dependence and autonomy in teachers are some of the person-
ality studies done on teachers. Guba, Jackson, and Bidwell
(4, pp. 271-278) gave the Edwards Personal Preference Sche-
dule to samples of teacher trainees and veteran teachers.
The findings showed that the groups studied were high in
deference, order, and endurance needs but low in hetero-
sexuality, dominance, and exhibition needs. These six needs
were most characteristic of the veteran teachers. Conspic-
uous by their absence were such needs as achievement, intra-
ception, and nurturance. Somehow, the authors conclude, the
educational experiences teachers undergo coalesce the ini-
tial personality differences of teachers into a common per-

sonality pattern. Whether or not this process occurs by genu-
ine change in non-conformist personalities or by attrition of
non-conformists remains a moot question. Nevertheless, one
must agree that if these qualities are general characteristics
of teachers it is not surprising to find little disagreement
between teachers on the importance of hierarchical authority,
rules for teachers, or procedural specification.

High principals' professional scores were inversely re-
lated to the desirability of Scales I, III, IV, (all signi-
ficantly); and positively related to Scales II and VI (both
significantly). This fits the model that the more profession-
al principal would not favor an emphasis on the clearly bur-
eaucratic characteristics (Scales I, III, IV, V) of school
organizations, but would favor an emphasis on the rational
characteristics (Scales II, VI) of school organizations.

When a comparison is made of teachers' and principals'
views on the perceived desirability of the bureaucratic di-
mensions, important differences emerge. Teachers had higher
scores than principals on every dimension except technical
competence. Clearly, they want more bureaucratization than
do principals. Why this should be so is not clear. It con-
tradicts the findings of MacKay (6, p. 340) who found that
there was no significant difference in the perceived desir-
ability of the six bureaucratic dimensions between teachers
and principals. Part of the explanation may be in the fact

that this study and the MacKay study are drawn from two dif-
ferent populations (British Columbia and Alberta), and that
principals in these two populations differ in some of their
basic attitudes. This is conjecture and only research on
this topic can prove the usefulness of this speculation.

III. RELATIONSHIPS BETWEEN SELECTED DEMOGRAPHIC

VARIABLES AND THE PERCEIVED DESIRABILITY

OF THE BUREAUCRATIC DIMENSIONS

Analysis of Scores on the Perceived Desirability of the Bur-
eaucratic Dimensions on the Basis of Academic and Profes-
sional Preparation

Findings. A significant overall difference was found
in the perceived desirability of Scale III (rules for incum-
bents) and Scale V (impersonality) between teacher/principal
groups differing in the kind of academic and professional
preparation each group received. No differences between
groups were found on the perceived desirability of Scale I,
II, IV, or VI (Table XXII).

Discussion. No clear pattern emerges from an examina-
tion of these results. To illustrate the confusion surround-
ing these findings, the teachers with Master of Education
degrees score the highest of all groups on the desirability
of Scale III and the lowest of all groups on Scale V. Scale
III (rules for incumbents) and Scale V (impersonality) are
bureaucratic dimensions which are positively related (ante,

TABLE XXII

ANALYSIS OF VARIANCE OF THE PERCEIVED DESIRABILITY OF

THE BUREAUCRATIC DIMENSIONS ON THE BASIS OF

ACADEMIC AND PROFESSIONAL PREPARATION

(Teachers and Principals)

(Respondents = 517)

	N	Scale I: Means	F	Scale II: Means	F	Scale III: Means	F
No University Degree	295	3.08		4.25		3.34	
B.Ed. (Elementary)	37	2.84		4.30		3.43	
B.Ed. (Secondary)	36	3.06		4.50		3.25	
Bachelor's Degree in a Faculty other than Education Plus 1 Year Teacher Training	108	2.96		4.33		2.98	
			.64		1.33		3.85***
Bachelor's Degree in a Faculty other than Education Plus old (Post-Graduate) B.Ed.	25	3.28		4.04		2.60	
Master of Education	16	3.25		4.38		3.50	

*** Significant at the .001 Level

TABLE XXII (continued)

ANALYSIS OF VARIANCE OF THE PERCEIVED DESIRABILITY OF

THE BUREAUCRATIC DIMENSIONS ON THE BASIS OF

ACADEMIC AND PROFESSIONAL PREPARATION

(Teachers and Principals)

(Respondents = 517)

	N	Scale IV: Means	F	Scale V: Means	F	Scale VI: Means	F
No University Degree	295	3.37		3.58		4.28	
B. Ed. (Elementary)	37	3.46		3.97		4.60	
B. Ed. (Secondary)	36	3.28		3.28		4.33	
Bachelor's Degree in a Faculty other than Education Plus 1 Year Teacher Training	108	3.13		3.29		4.44	
			1.19		3.11**		1.98
Bachelor's Degree in a Faculty other than Education Plus old (Post-graduate) B. Ed.	25	3.16		3.40		4.32	
Master of Education	16	3.56		2.81		4.25	

** Significant at the .01 Level

p. 118). One wonders how these conflicting viewpoints are mediated in the individuals in this group. In short, the results in Table XXII should be interpeted with extreme caution. The main reason is that in four of the six categories the cell frequences are low. The only groups with a reasonable number in them are: (a) the group with no university degree and (b) the group with Bachelor's degrees in a faculty other than education plus one year's teacher training. Generalizability of results from the other groups would appear to be not justifiable.

Analysis of Scores on the Perceived Desirability of the Bureaucratic Dimensions on the Basis of Sex, Marital Status and Teaching Experience

Findings. Significant differences were found on the desirability of Scale III, Scale IV, and Scale V when the teachers and principals were divided into male and female groups (Table XXIII). Females desired significantly more emphasis on Scales III, IV and V.

Table XXIV shows that married teachers and principals desire significantly less specialization (Scale II) and less emphasis on rules (Scale III) than do single teachers and principals.

Teacher groups with differing amounts of teaching experience exhibited no significant overall difference in their attitudes towards the desirability of the bureaucratic dimen-

TABLE XXIII

A COMPARISON OF MEANS ON THE PERCEIVED DESIRABILITY

OF THE BUREAUCRATIC DIMENSIONS ON THE

BASIS OF SEX

(Teachers and Principals)

(Males = 228;   Females = 289)

	Means	S.D.	t
Scale I:			
Male	2.99	1.20	1.04
Female	3.10	1.19	
Scale II:			
Male	4.30	.79	.42
Female	4.27	.75	
Scale III:			
Male	3.00	1.11	4.29***
Female	3.42	1.07	
Scale IV:			
Male	3.13	1.11	3.54***
Female	3.46	1.04	
Scale V:			
Male	3.21	1.30	4.64***
Female	3.72	1.19	
Scale VI:			
Male	4.36	.66	.50
Female	4.33	.72	

*** Significant at the .001 Level

TABLE XXIV

A COMPARISON OF MEANS ON THE PERCEIVED DESIRABILITY

OF THE BUREAUCRATIC DIMENSIONS ON THE BASIS

OF MARITAL STATUS

(Teachers and Principals)

(Single = 140;   Married = 348)

	Means	S.D.	t
Scale I:			
Single	3.04	1.16	
			.21
Married	3.02	1.22	
Scale II:			
Single	4.44	.70	
			2.62**
Married	4.24	.79	
Scale III:			
Single	3.38	1.05	
			2.15*
Married	3.14	1.13	
Scale IV:			
Single	3.44	1.04	
			1.61
Married	3.26	1.10	
Scale V:			
Single	3.64	1.23	
			1.81
Married	3.41	1.28	
Scale VI:			
Single	4.35	.73	
			.30
Married	4.37	.67	

** Significant at the .01 Level

 * Significant at the .05 Level

sions, except on Scale II (Table XXV).

An analysis of covariance of teachers' and principals' scores on the perceived desirability of the bureaucratic dimensions revealed significant overall differences on the perceived desirability of Scale III, IV, and V (Table XXVI). In this analysis, teachers and principals were classified into four groups: single males, married males, single females, and married females. The covariate was years of teaching experience.

A second analysis of covariance, using only teachers' scores, showed significant overall differences in the perceived desirability of Scale III, IV, and V (Table XXVII). Once again, the covariate was years of teaching experience.

Discussion. The results concerning the relationship of sex, marital status and teaching experience to the perceived desirability of the bureaucratic dimensions are very difficult to interpet. An examination of Table XXVI shows that teachers and principals differed significantly in their scores on the perceived desirability of Scales III, IV, and V. In this analysis, years of teaching experience was controlled as it was believed that the length of time one had been in the teaching profession might influence one's attitudes towards the desirability of the bureaucratic dimensions.

TABLE XXV

ANALYSIS OF VARIANCE OF THE PERCEIVED DESIRABILITY

OF THE BUREAUCRATIC DIMENSIONS ON THE BASIS

OF YEARS OF TEACHING EXPERIENCE

(Teachers and Principals)

(Respondents = 517)

	N	Scale I: Means	F	Scale II: Means	F	Scale III: Means	F
1 Year	49	3.31		4.47		3.02	
2 Years	47	3.23		4.28		3.21	
3 Years	49	2.88		4.20		3.12	
4 Years	42	3.10		4.43		3.33	
5 Years	39	3.18	1.22	4.88	2.05*	1.4	.84
6 to 15 Years	160	3.08		4.29		3.33	
16 to 25 Years	89	2.83		4.07		3.18	
26 or more Years	42	2.91		4.26		3.12	

* Significant at the .05 Level

TABLE XXV (continued)

ANALYSIS OF VARIANCE OF THE PERCEIVED DESIRABILITY

OF THE BUREAUCRATIC DIMENSIONS ON THE BASIS

OF YEARS OF TEACHING EXPERIENCE

(Teachers and Principals)

(Respondents = 517)

	N	Scale IV: Means	F	Scale V: Means	F	Scale VI: Means	F
1 Year	49	3.37		3.33		4.39	
2 Years	47	3.26		3.40		4.30	
3 Years	49	3.00		3.43		4.43	
4 Years	42	3.38		3.45		4.26	
5 Years	39	3.49	.93	3.59	.30	4.36	.87
6 to 15 Years	160	3.36		3.51		4.41	
16 to 25 Years	89	3.36		3.60		4.26	
26 or more Years	42	3.19		3.52		4.21	

TABLE XXVI

ANALYSIS OF COVARIANCE OF THE PERCEIVED DESIRABILITY OF THE BUREAUCRATIC

DIMENSIONS BY TEACHERS AND PRINCIPALS BASED ON SEX AND MARITAL

STATUS WITH YEARS OF TEACHING EXPERIENCE CONTROLLED

Scale	Groups	N	Unadjusted Means	Adjusted Means	Source	df	MS	Adjusted F
I	S.M.	41	3.22	3.15	Between	3	1.47	1.01
	M.M.	183	2.92	2.95	Within	484	1.44	
	S.F.	99	2.97	2.94				
	M.F.	165	3.12	3.13				
II	S.M.	41	4.56	4.54	Between	3	1.23	2.11
	M.M.	183	4.23	4.24	Within	484	.58	
	S.F.	99	4.38	4.37				
	M.F.	165	4.24	4.25				
III	S.M.	41	3.27	3.31	Between	3	8.40	7.05***
	M.M.	183	2.93	2.91	Within	484	1.20	
	S.F.	99	3.42	3.44				
	M.F.	165	3.38	3.37				

*** Significant at the .001 Level

Key: S.M. = Single Males
M.M. = Married Males
S.F. = Single Females
M.F. = Married Females

TABLE XXVI (Continued)

ANALYSIS OF COVARIANCE OF THE PERCEIVED DESIRABILITY OF THE BUREAUCRATIC

DIMENSIONS BY TEACHERS AND PRINCIPALS BASED ON SEX AND MARITAL

STATUS WITH YEARS OF TEACHING EXPERIENCE CONTROLLED

Scale	Groups	N	Unadjusted Means	Adjusted Means	Adjusted Analysis of Variance			
					Source	df	MS	Adjusted F
IV	S.M.	41	3.39	3.43	Between	3	5.15	4.47**
	M.M.	183	3.09	3.08	Within	484	1.15	
	S.F.	99	3.45	3.47				
	M.F.	165	3.45	3.44				
V	S.M.	41	3.63	3.69	Between	3	14.07	9.08***
	M.M.	183	3.11	3.09	Within	484	1.55	
	S.F.	99	3.64	3.67				
	M.M.	165	3.73	3.72				
VI	S.M.	41	4.44	4.43	Between	3	.22	.47
	M.M.	183	4.35	4.35	Within	484	.48	
	S.F.	99	4.31	4.31				
	M.F.	165	4.39	4.40				

** Significant at the .01 Level
*** Significant at the .001 Level

Key: S.M. = Single Males
M.M. = Married Males
S.F. = Single Females
M.F. = Married Females

TABLE XXVII

ANALYSIS OF COVARIANCE OF THE PERCEIVED DESIRABILITY OF THE BUREAUCRATIC

DIMENSIONS BY TEACHERS BASED ON SEX AND MARITAL STATUS WITH YEARS

OF TEACHING EXPERIENCE CONTROLLED

Scale	Groups	N	Unadjusted Means	Adjusted Means	Adjusted Analysis of Variance			
					Source	df	MS	Adjusted F
I	S.M.	40	3.20	3.13	Between	3	1.26	.88
	M.M.	156	2.95	2.97	Within	455	1.43	
	S.F.	99	2.97	2.94				
	M.F.	165	3.12	3.14				
II	S.M.	40	4.58	4.56	Between	3	1.23	2.20
	M.M.	156	4.26	4.27	Within	455	.56	
	S.F.	99	4.38	4.38				
	M.F.	165	4.24	4.25				
III	S.M.	40	3.25	3.29	Between	3	6.54	5.60***
	M.M.	156	2.96	2.95	Within	455	1.17	
	S.F.	99	3.42	3.44				
	M.F.	165	3.38	3.36				

*** Significant at the .001 Level

Key: S.M. = Single Males
M.M. = Married Males
S.F. = Single Females
M.F. = Married Females

TABLE XXVII (Continued)

ANALYSIS OF COVARIANCE OF THE PERCEIVED DESIRABILITY OF THE BUREAUCRATIC

DIMENSIONS BY TEACHERS BASED ON SEX AND MARITAL STATUS WITH YEARS

OF TEACHING EXPERIENCE CONTROLLED

Scale	Groups	N	Unadjusted Means	Adjusted Means	Adjusted Analysis of Variance			
					Source	df	MS	Adjusted F
IV	S.M.	40	3.43	3.47	Between	3	4.04	3.57**
	M.M.	156	3.12	3.11	Within	455	1.13	
	S.F.	99	3.45	3.48				
	M.F.	165	3.45	3.44				
V	S.M.	40	3.63	3.69	Between	3	10.73	7.13***
	M.M.	156	3.15	3.13	Within	455	1.51	
	S.F.	99	3.63	3.67				
	M.F.	165	3.73	3.72				
VI	S.M.	40	4.45	4.44	Between	3	.31	.64
	M.M.	156	4.32	4.32	Within	455	.49	
	S.F.	99	4.31	4.31				
	M.F.	165	4.39	4.40				

Key: S.M. = Single Males
M.M. = Married Males
S.F. = Single Females
M.F. = Married Females

*** Significant at the .001 Level
** Significant at the .01 Level

The second analysis of covariance was done on teachers' scores only. This was because it was felt that the principals' scores might be unduly influencing the male scores, as all principals participating in the study were males. More particularly, they might be influencing the married males scores, as twenty-seven of the twenty-nine principals were married. Table XXVII shows that the removal of the principals did not affect the significance of the results obtained in Table XXVI.

It should be noted that there were some teachers and principals who were omitted in the analysis done in this part of the study. These were individuals who were neither married nor single and they formed a residual category classified as "other". This group was composed of twenty-eight teachers and one principal.

The main observation that can be made from an inspection of the data in Tables XXVI and XXVII is that it is the married male teachers who contribute the most to the significant overall F ratios found on Scale III, IV, and V. On each of these three scales, the married males' scores are considerably lower than any of the three other groups. To explain why this is so is extremely difficult. One possible explanation is that this group may be more highly qualified in terms of technical qualifications. Table XXII shows significant overall differences on Scale III and V when teacher/

principal groups are divided on the basis of academic and professional training. No clear pattern emerges out of this data. For example, on the desirability of Scale III, the highest scores are obtained by those with Master of Education degrees. On Scale V, this same group has the lowest scores on the desirability of this dimension. In the analysis of covariance, it would have been desirable to control the factor of academic and professional preparation, but this was not possible because of the nominal nature of this data.

Scales III, IV, and V measure a person's attitude towards three bureaucratic dimensions which are intimately concerned with the role incumbent's autonomy in the work situation. On these three scales, married males scored lower than any of the other three groups. The single males had means on the perceived desirability of these three dimensions that were quite similar to the means for females. Why the single males record scores higher than the married males and have scores similar to those of the females is a question that only further research can answer.

The possible explanation as to why females would have relatively high scores on the desirability of Scales III, IV, and V can be found in studies done on personality differences between male and female teacher trainees. Gillis (3, pp. 589-600) administered Stern's Activities Index (9)

to groups of male and female teacher trainees. The Activities
Index is based on H.A. Murray's (8) classification of needs.
Gillis found that the female teacher trainees exhibited sig-
nificantly stronger dependency needs than did the male train-
ees. These dependency needs included abasement, affiliation,
deference, nurturance, order and succorance. Gillis concluded
that these strong dependency needs were probably related to
the traditional dependent role that the female occupies in
society, and these strong dependency needs are carried by women
over into the occupational field they enter. It would seem
reasonable then to suggest if female teacher trainees exhibit
these dependency needs, perhaps female teachers do as well.
Consequently, females like organizational structures which
will satisfy their dependency needs and this helps to ex-
plain why they like an emphasis on rules, specification of
procedures, and impersonality. All three of these bureau-
cratic features reduce the need for independent thought
and action on the part of the role incumbent in the organi-
zation.

IV. SUMMARY

An attempt was made in this part of the study to in-
vestigate the extent of compatability and incompatability
existing between the professional role orientations of
teachers and principals and the six-dimensional bureau-
cratic model as being desirable in an "ideal" school. In

addition, teachers' and principals' responses to the desirability items were analysed on the basis of certain demographic characteristics of the respondents.

Positive and significant relationships were discovered between teachers' professional scores and a desire for specialization, impersonality, and an emphasis on technical competence in schools. No significant relationships were discovered between teachers' professional scores and a desire for hierarchical authority, rules for incumbents, and procedural specification. Consequently, Hypotheses 4.2 and 4.6 were supported.

There was a positive and significant relationship between principals' professional scores and a desire for emphasis on technical competence in schools. In addition, negative and significant relationships were found between principals' professional scores and a desire for hierarchical authority, rules for incumbents, and procedural specification. Consequently, Hypotheses 5.1, 5.3, 5.4 and 5.6 were supported. In addition, the direction of all the hypotheses concerning principals' professional scores was correct. Significant differences between teachers and principals were found on the desirability of Scales II, III, IV, and V. Teachers wanted significantly more specialization, rules for incumbents, procedural specification, and impersonality than did principals.

When teachers and principals were grouped on the basis of their academic and professional preparatory background, overall significant differences between groups were found on Scales III and V.

There was a significant overall difference in the rated desirability of Scale II when teachers and principals were grouped on the basis of teaching experience.

Finally, significant overall differences were found on the perceived desirability scores for Scales III, IV, and V when teachers and principals were classified as to sex and marital status.

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CHAPTER VII

RESULTS, ANALYSIS, AND DISCUSSION:

ADVISORY AUTHORITY SCORES

I. INTRODUCTION

In this part of the study an attempt was made to de-
termine whether advisory authority was used more by prin-
cipals in high professional schools, that is, schools where
both the principal and the staff had high professional
scores; as compared to low professional schools, that is,
where both the principal and staff had low professional
scores. Advisory authority was conceptualized as comprising
principals' behaviors which stressed: (1) the granting of
considerable autonomy to teachers in their work (Dimension
I); (2) a reliance on giving advice to teachers on profes-
sional matters only when requested to do so by teachers,
rather than giving unsolicited advice (Dimension II); (3)
a recognition by the teachers that the principal's advice
may be either accepted or rejected without fear of gaining
the principal's disapproval (Dimension III).

The theory underlying this section of the study was
that principals who were highly oriented to the teaching
profession would respect the norm of professional autono-
my for teachers; and this effect would be most pronounced
in schools where both the staff and the principal had high
professional orientations.

II. ANALYSIS OF ADVISORY AUTHORITY SCORES

Intercorrelations Between Advisory Authority Scores

Dimension I (the autonomy dimension) was composed of four items (Items, 24, 26, 28, 29) taken from the Leader Behavior Description Questionnaire--Form XII (1). Dimension II (the requested advice dimension) was item 25 and Dimension III (the fear of disapproval dimension) was item 27. Items 25 and 27 were constructed by the investigator especially for this study.

Table XXVIII shows the intercorrelations of all advisory authority items and the correlation of each item with the total advisory authority score. All items intercorrelated significantly which indicates that they are measuring the same concept. There is also a high correlation between each item and the total advisory authority score.

Relationships Between Staff Professional Scores, Principals' Professional Scores and Total Advisory Authority Scores

Findings. Table XXIX shows the correlations between staff professional scores and Dimensions I, II, III and the total advisory authority score. With the exception of Dimension III all correlations are in the expected direction, but none is significant.

Table XXIX also shows the correlations between all principals' professional scores and Dimensions I, II, III and the

TABLE XXVIII

INTERCORRELATIONS BETWEEN ADVISORY AUTHORITY ITEMS

AND TOTAL ADVISORY AUTHORITY SCORE

(Respondents = 488)

Item	24	25	26	27	28	29	Total Advisory Authority Score
24	1.000	.740***	.758***	.642***	.557***	.808***	.878***
25		1.000	.560***	.430***	.406***	.590***	.750***
26			1.000	.783***	.747***	.881***	.914***
27				1.000	.724***	.802***	.845***
28					1.000	.726***	.804***
29						1.000	.993***
Total Advisory Authority Score							1.000

*** Significant at the .001 Level

TABLE XXIX

CORRELATION OF STAFF PROFESSIONAL SCORES AND PRIN-

CIPALS' PROFESSIONAL SCORES WITH ADVISORY

AUTHORITY DIMENSION SCORES AND TOTAL

ADVISORY AUTHORITY SCORES

(Schools = 29)

	Correlation With Staff Professional Scores	Correlation With Principals' Professional Scores
Dimension I	.08	-.09
Dimension II	.17	-.11
Dimension III	-.03	-.01
Total Advisory Authority Score	.09	-.12

total advisory authority score. The correlations are not in the expected direction but none is significant.

Discussion. The Advisory Authority Instrument proved to be not a very discriminating instrument. Dimension I was particularly low in discriminative power as each of the four items in this dimension had very low standard deviations. Dimensions II and III had larger standard deviations but still were not highly discriminative. For this reason, the instrument lacked power.

There was a small indication that the use of advisory authority was more prevalent in schools which had high staff professional scores, and this supports the theory underlying this part of the study. On the other hand, a high principal's professional score was associated with an absence of the use of advisory authority. Once again, however, the results were not statistically significant. Nevertheless, it is interesting to speculate as to why principals who are high in their orientation to the teaching profession would tend to depreciate the norm of professional autonomy and given unsolicited advice and express disapproval if their advice to teachers was not followed. The only possible explanation is that principals who are oriented highly to the teaching profession probably feel they are competent in the teachers' professional area of activity. For this reason, they feel competent to give advice to tea-

chers even when the teachers have not asked for it. As Trask (2) has pointed out, principals appear to consider their qualifications and those of the advisee, and they then adapt their supervisory practices accordingly. Thus it seems that when the advisee is highly qualified advisory authority is used more; but when the principal considers himself highly qualified advisory authority is used less.

Comparison of High Professional Schools and Low Professional Schools on the Use of Advisory Authority

Findings. Table XXX shows that there was no significant difference between high and low professional schools in the use of advisory authority. The high professional schools were those schools whose staffs and principals had professional scores above the mean for all staff professional scores and principals' professional scores. These schools totalled five. The low professional schools had staff professional scores below the mean for all staff professional scores; and principals' professional scores below the mean for all principals' professional scores. These schools totalled six.

The fact that staff professional scores were on the whole positively correlated with the advisory authority items and the total advisory authority score and the fact that the reverse was true for principal professional scores; meant that when the two were combined they tended to cancel one another

TABLE XXX

A COMPARISON OF MEANS BETWEEN HIGH PROFESSIONAL SCHOOLS

AND LOW PROFESSIONAL SCHOOLS ON ADVISORY AUTHORITY

ITEMS AND TOTAL ADVISORY AUTHORITY SCORES

(High Professional Schools = 5; Teachers = 77

Low Professional Schools = 6; Teachers =116)

	Means	S.D.	t
Item 24			
High Professional	4.16	.76	.235
Low Professional	4.18	.70	
Item 25			
High Professional	3.86	1.08	.236
Low Professional	3.82	1.10	
Item 26			
High Professional	4.25	.72	1.03
Low Professional	4.34	.59	
Item 27			
High Professional	3.48	1.19	.134
Low Professional	3.46	1.19	
Item 28			
High Professional	4.34	.91	1.30
Low Professional	4.49	.73	
Item 29			
High Professional	4.25	.76	.03
Low Professional	4.25	.73	
Total Adv. Auth.Score			
High Professional	24.32	3.70	.44
Low Professional	24.54	3.14	

out. Thus no significant differences were found in the use
of advisory authority between high and low professional
schools and Hypothesis 6.0 is not supported.

Table XXXI shows the multiple regression prediction of
the total advisory authority score by the two predictors--
principals' professional scores and staff professional scores.
The amount of variation accounted for by these two predictors
is very small and not significant.

Discussion. The fact that staff professional scores and
principal professional scores are not good predictors of
advisory authority scores means that there are probably extra-
organizational variables or other intra-organizational vari-
ables operating to influence the extent of use of advisory
authority in schools. Only further research can identify what
these variables are.

III. SUMMARY

An attempt was made to find out whether the use of ad-
visory authority was more prevalent in high professional
schools as compared to low professional schools. No signi-
ficant difference was found and consequently Hypothesis 6.0
is not supported. There was a slight trend for high advi-
sory authority scores to be associated with a high staff
professional score and a high principal's professional score
to be associated with a low advisory authority score.

TABLE XXXI

MULTIPLE REGRESSION PREDICTION OF TOTAL ADVISORY AUTHORITY SCORES

BY STAFF PROFESSIONAL SCORES AND PRINCIPALS'

PROFESSIONAL SCORES

(Schools = 29)

Predictors	Correlation With Total Advisory Authority Scores	% of Variation Accounted For Stepwise	Cumulative Total % of Variation	Multiple Correlation R
Principals' Prof. Scores	-.12	1.35	1.35	.12
Staff Prof. Scores	.09	.78	2.13	.15

Nevertheless, neither staff professional scores nor princi-

pals' professional scores were significant predictors of

advisory authority scores and there are probably other vari-

ables operating to account for the variation in these scores.

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CHAPTER VIII

SUMMARY, CONCLUSIONS, FURTHER RESEARCH

AND IMPLICATIONS

I. SUMMARY

The Problem

The central problem of this study was an investigation of the relationships existing between professional role orientations of teachers and principals and the bureaucratic dimensions of school organizations.

In addition, an attempt was made to determine the relationship between the professional role orientations of teachers and principals and the desirability of the six-dimensional bureaucratic model for schools.

Finally, an investigation was made of the relationships between principals' and teachers' professional role orientations and the use of advisory authority in schools.

Analysis of the Problem

A large number of writers in the field of organizational analysis (Reisman, Ben-David, McEwan, Whyte, Brown, Caplow and McGee, Corwin) have pointed out the strains and tensions professionals experience when they are employed in bureaucratic organizations.

Gross, Trask, Scully, Bridges and Corwin have also in-
dicated that there is a possible conflict between the devel-
oping professionalism of teachers and principals and the
trend towards increased bureaucratization in schools. The
fact that teachers do differ in their degree of profession-
alism has been investigated by Corwin and the applicability
of the bureaucratic model to school organizations has been
investigated by MacKay. These studies pointed to the use-
fulness of an investigation to determine whether the profes-
sional role orientations possessed by teachers and princi-
pals were related to a desire for bureaucratization in
school organizations.

A number of writers: Goss, Hall, Trask, Pelz, Stinch-
combe, and MacKay have indicated that the degree and kind
of bureaucratization found in an organization may be re-
lated to the degree of professionalism possessed by the
organization's members. Therefore, it seemed logical to
investigate whether this would be true in school organiza-
tions.

Sub-Problems and Hypotheses

Sub-Problem 1.0 investigated whether there would be
a significant overall difference in staff professional scores
between school, and it was hypothesized that schools would
differ in their staff professional scores.

Sub-Problem 2.0 investigated the relationship between staff professionalism and the bureaucratic dimensions of school organizations. It was hypothesized that there would be an inverse relationship between staff professional scores and emphasis on hierarchical authority, rules for incumbents, procedural specification and impersonality; and a positive relationship between staff professional scores and an emphasis on specialization and technical competence.

Sub-Problem 3.0 investigated the relationship between principals' professionalism and bureaucratic dimensions of schools. It was hypothesized that there would be an inverse relationship between principals' professional scores and an emphasis on hierarchical authority, rules for incumbents, procedural specification, and impersonality; and a positive relationship between principals' professional scores and an emphasis on specialization and technical competence.

Sub-Problem 4.0 investigated the relationship between teachers' professional scores and their attitudes towards bureaucracy as an ideal organizational form for schools. Similarly, Sub-Problem 5.0 investigated the relationship between principals' professional scores and their attitudes towards bureaucracy as an ideal organizational form for schools. It was hypothesized that both teachers' professional scores and principals' professional scores would be inversely related to the perceived desirability of hier-

archical authority, procedural specification, and the imper-
sonality; and both teachers' and principals' professional
scores would be positively related to the perceived desira-
bility of specialization and technical competence.

Sub-Problem 6.0 was an investigation of the question
of whether the exercise of advisory authority was related
to the degree of professionalism of the principal and the
degree of staff professionalism found in a school. It was
hypothesized that high professional schools would differ
from low professional schools in the use of advisory auth-
ority.

Results

There was no overall significant difference in staff
professional scores between schools but when the top and
bottom quartile of staff professional scores were compared,
a highly significant difference was found.

There was no overall significant difference in tea-
chers' professional scores between different types of schools
but there was a significant overall difference in teachers'
and principals' professional scores on the basis of academic
and professional preparation.

No significant differences were found in professional
scores between teachers and principals. Professional scores

were not related to either the sex or marital status of the respondents. Finally, no differences were found in professional scores between teacher/principal groups with different amounts of teaching experience.

The theoretical model of bureaucracy in school organizations underlying this study was supported. The observed bureaucratic scores on Scales I, III, IV, and V were all positively and significantly correlated; and the observed bureaucratic scores on Scales II and VI were similarly positively and significantly correlated. There was, as expected, however, negative and significant correlations between Scale I, III, IV and V and Scales II and VI.

The analysis of variance of observed bureaucratic scores revealed significant overall differences between schools on the six bureaucratic dimensions. Similarly, there were significant overall differences in observed bureaucratization on all six dimensions between different types of schools.

It was discovered that staff professional scores were not significantly related with any of the six bureaucratic dimensions. The same was true for the relationship between principals' professional scores and observed bureaucratic scores on the six dimensions.

School size was not significantly related to any of the six bureaucratic dimensions.

The best predictor of a school's bureaucratic struc-
ture was the staff professional score (Scales II, III, IV
and VI). School size was the best predictor of Scale V
and the principal's professional score was the best pre-
dictor of Scale I. No one nor any combination of the above
three predictors accounted for a significant amount of the
variation in the bureaucratic scores.

Positive and significant relationships were discov-
ered between teachers' professional scores and the per-
ceived desirability of Scale II, V, and VI.

Positive and significant relationships were found be-
tween principals' professional scores and the perceived
desirability of Scales II and VI; and negative and signi-
ficant relationships between principals' professional
scores and the desirability of Scales I, III, and IV.

Significant differences between teachers and princi-
pals were found on the desirability of Scales II, III, IV
and V.

There were overall significant differences found on
the desirability of Scales III and V when teachers and prin-
cipals were grouped on the basis of academic and profes-
sional preparation.

There were significant overall differences in the per-
ceived desirability of Scales III, IV, and V by teachers

and principals when they were classified on the basis of sex and marital status.

Teacher/principal groups with different amounts of teaching experience exhibited a significant overall difference in their desire for Scale II.

Finally, no significant difference was found between high professional and low professional schools in the use of advisory authority.

Hypotheses Testing

Hypothesis 1.0 was substantially supported. Although no significant overall difference was found, classification of the scores into quartiles revealed significant differences.

Hypotheses 2.1 to 2.6 and hypotheses 3.1 to 3.6 were not supported.

Hypotheses 4.2 and 4.6 were supported as were hypotheses 5.1, 5.3, 5.4 and 5.6.

Hypothesis 6.1 was not supported.

II. CONCLUSIONS

In Relation to Instrumentation

One of the most fruitful outcomes of this study has

been the work done on instrumentation. A large part of the time devoted to this study was consumed in the improvement of the instruments to be used.

The Professional Role Orientation Scale was completely revised and adapted for Canadian use. In addition, it was pragmatically validated for use in determining differences in professionalism between schools. This scale proved to be a highly discriminative instrument and it should become a useful research tool for the future. Further improvements can still be made in this instrument. Specifically, the instrument should be lengthened so that reliable sub-scales can be developed. At the present time the instrument gives only a global rating on professionalism. Since professionalism is a complex, multi-dimensional concept it would be very desirable if the instrument could be lengthened to provide a multi-dimensional portrait of an individual's professional role orientation.

The School Organizational Inventory also proved to be a very discriminating instrument. A great deal of work went into the refinement of this instrument and it proved to be a most valuable research instrument for measuring bureaucratization in schools. A factor analysis of this instrument should prove useful. At the present time, the instrument measures six bureaucratic dimensions. Some of these dimensions, however, may very well be multi-dimensional.

For example, impersonality is an extremely complex concept.
Impersonality in an organization should be examined in terms
of various types of behaviors. Specifically, an examination
must be made of relations between superordinates and sub-
ordinates; between workers at the same level in the organi-
zational hierarchy; and between role incumbents and their
clients. A factor analysis may single out factors which are
now subsumed under thebroad concept of impersonality.

Unfortunately, the Advisory Authority Instrument was
not highly discriminating and this strument requires a great
deal of further work before it can be considered valid and
reliable. The instrument should be lengthened, tested for
internal consistency, and validated against schools judged
to be low or high in the concept being measured.

In Relation to Professionalism

One of the most significant findings of this study was
that schools do differ in their degree of staff profession-
alism. Up to this point, no differences in professionalism
between schools had been discovered by other investigators.
Now that this has been confirmed, much interesting work re-
mains to be done to identify the factors which contribute
to either a high or a low professional climate in a school.
Of very great significance is the question of whether dif-
ferences in staff professionalism have an effect on organi-
zational climate, leader behavior, pupil productivity, staff

morale, supervisory practices, et cetera.

Another significant finding was that teachers and principals who have different academic and professional preparatory backgrounds differ in their degree of professional orientation. The finding that the highest professional scores were obtained by those personnel who held the Bachelor of Education as a first degree is of considerable important to all educators concerned with teacher preparation. The tentative conclusion which may be reached is that a professional preparatory program which involves the student in the field of education study from the outset of his university career is a program which is more likely to result in the development of professional attitudes than any other type of program. It seems proper to suggest that an early orientation to the profession and a continuing orientation throughout a student's preparatory period is an important factor in the development of professional attitudes in a teacher.

The general trend which indicated that married teachers and principals had higher professional scores than single personnel is a finding which is of considerable significance, particularly as it applies to women. The commonly held image of the married woman teacher who teaches only for its financial compensations does not appear to be true. The more probable truth is that these women teach because they like to teach and this identification with teaching shows up in their

high professional scores. It is interesting to note that the female married teacher group had the highest scores of all groups analysed in the study.

In Relation to Observed Bureaucratic Scores

In this study it was shown that the classical model of bureaucracy was not applicable to school organizations. The six bureaucratic dimensions were not all interrelated. Instead, the undergirding theory of this study, which stated that the six bureaucratic dimensions would be related to one another in certain definite ways was supported. Specifically, it was stated that Scales I, III IV and V would be positively related to one another and Scales II and VI would also be positively related to one another. However, Scales I, III, IV and V would be negatively related to Scales II and VI. This theory was substantiated and it shows that schools have a particular kind of bureaucratic patterning.

This finding is of considerable interest and importance to all students of organizational analysis. It supports the position of Litwak (3, p. 184) who holds that there is a "professional" model of bureaucracy which differs in structure from the classical Weberian model. This finding also supports the work of Udy (7) who showed that the Weberian model of bureaucracy contained elements which were not all interrelated.

The finding that school organizations have a definite
pattern of bureaucratization raises some very interesting
questions concerning differences in bureaucratic patterns
between school organizations and other types of organizations.
More particularly what types of bureaucratic patterns are
found in commercial, governmental, military, and other kinds
of organizations? In addition, the large question looms as
to what are the factors which contribute to a certain type of
bureaucratic pattern in a certain kind of organization. Lit-
wak (3) has suggested that the extent of uniformity of the
task being performed and the amounts of interpersonal rela-
tionships necessary are two factors which may contribute to
differing bureaucratic patterns. Recently, a number of wri-
ters have suggested that technology plays an important part
in determining bureaucratic structure. Woodward (9), in a
study of English firms, found that the ratio of managers
and supervisors to other personnel was clearly related to the
technology employed in the firm and was relatively little in-
fluenced by the size of the firm.

An important finding of this study was that schools dif-
fered significantly on all six bureaucratic dimensions. In
addition, different types of schools differed significantly on
all six dimensions. Thus bureaucratization of any one kind
is not restricted to any one type of school.

There was a trend to indicate that schools with high staff professional scores de-emphasized hierarchical authority, rules, procedural specification, impersonality and emphasized specialization. This fits the theory that the staff has an important effect in determining to some extent the organizational structure of a school. A particularly interesting finding was that these schools with high staff professional scores de-emphasized technical competence. This raises the interesting question as to whether there is a difference between bureaucratic competence and a professional view of technical competence.

A very important conclusion that came out of this study was that neither staff professionalism, principals' professionalism nor school size was a good predictor of bureaucratization in school organizations. A large amount of variation is unexplained and is due to other factors--either extra-organizational and/or intra-organizational.

In Relation to the Perceived Desirability of the Bureaucratic Dimensions

Some interesting, but confusing, results were discovered concerning the perceived desirability of the six bureaucratic dimensions. The desirability of the six bureaucratic dimensions depended upon positional, sex and marital characteristics of the respondents. The most important finding concerns the differences between teachers and principals

in their attitudes towards the desirability of the bureau-
cratic dimensions. Quite clearly, principals desire less
rules for incumbents, less procedural specification, and
less impersonality than do teachers. These are bureaucra-
tic characteristics designed to reduce the need for inde-
pendent thought and action on the part of the role incum-
bent. The fact that teachers want more emphasis on these
characteristics would seem to indicate that teachers as a
group do not place a high value on latitude of action in
the work situation.

In Relation to Advisory Authority

The concept of advisory authority is a key concept as
it is concerned primarily with the question of professional
autonomy. No satisfactory conclusions can be drawn from
this study about this concept as the instrumentation to
measure this concept proved to be poor.

III. FURTHER RESEARCH

The Professional Role Orientation Scale and the School
Organizational Inventory should prove to be useful research
instruments for further investigations into the areas of
professionalism and bureaucracy in schools. Much useful
work can still be done to develop these instruments further.
A particularly useful project would be the elaboration of
the Professional Role Orientation Scale in order that re-

liable sub-scales could be identified.

A particular interesting area of enquiry should be the whole area of professional climates in schools. Since schools do differ in their degree of staff professionalism, it would be useful to identify the factors operating to produce these differences. An examination could be made of whether there are "selecting-in" and "selecting-out" factors which help to determine the recruitment and retention of high professionals in certain schools. In addition, it is possible that low professionals are "selected-out" either because they find the climate inimical or because they are encouraged to leave. It would be interesting to know if community variables contribute to differences in staff professionalism. Is professional growth more liable to be fostered in communities which value the work of the schools as compared to communities where the value of education is less appreciated?

It would also appear to be profitable to investigate what intra-organizational factors operate to produce either a high or low professional climate in a school. The work done by House (2) should provide a useful methodological tool in analysing influence patterns in schools. It may now be possible to determine whether certain personnel are the key influentials in determining the professional climate of a school.

A very useful analytical tool for examining how the
extra-organizational and intra-organizational variables oper-
ate to produce differences in professionalism between schools
is W.F. Whyte's interactional model (8, pp. 155-183). The
model conceptualizes interactions, activities, and sentiments
in mutual dependence with each other and in relation to the
forces of the environment. Environmental forces are tech-
nical, physical, economic, legal, social and cultural in na-
ture and they can have an effect on the organization either
directly or symbolically.

The fact that schools differed significantly in their
bureaucratic scores on all six bureaucratic dimensions was
an important finding. The additional fact that bureaucra-
tization was not significantly related to school type, school
size, staff professionalism or principals' professionalism
raises the question of identification of the other varia-
bles operating to produce differences in bureaucratization
between schools. Considerable research is needed to identify
what variables are operating to produce the differences in
bureaucratization. Undoubtedly, the variables are both
extra-organizational and intra-organizational. The effect
on school bureaucratization by the provincial department of
education, the local school board, the district superinten-
dent, district staff personnel and community characteristics
are all possible contributors to differences found in bureau-
cratization between schools. Intra-organizational effects

on bureaucratization should be investigated further, particularly as they apply to the type of student clientele served. Of equal interest is the influence on bureaucratization of informal groups in the school, that is, either teacher or student groups.

A very interesting field of research is open in the comparison of bureaucratic patterns between different kinds of organizations. Comparative studies abound in this area of research.

Research needs to be done on the relationships between the perceived desirability of the bureaucratic dimensions and personality characteristics of teachers and principals. The writings of Merton(4) and Presthus (5) point to the close link between personality and behavioral predispositions of organizational members. It would be fruitful to investigate the question of whether the desire for certain bureaucratic dimensions is related to certain personality characteristics of the organizational members. The personality instruments to be used should be carefully chosen to insure that they measure those personality needs which are logically related to a predisposition for certain bureaucratic dimensions, that is, order, deference, succorance, et cetera. Two particularly useful instruments would appear to be the Edwards Personal Preference Schedule (1) and Stern's Activities Index (6).

A much closer look should be taken at the relationships between sex, marital status, and teaching experience to the perceived desirability of the bureaucratic dimensions. It is only by further research that the differences in the perceived desirability of the bureaucratic dimensions that do exist between groups can be explained.

Finally, a promising field of research lies in the area of advisory authority as it is concerned with the question of professional autonomy. A much more complete examination should be made of the extent to which teachers adhere to a norm of professional autonomy and to what degree this norm is respected or violated by superordinates.

IV. IMPLICATIONS

In recent years the study of educational administration has relied heavily on an inter-disciplinary approach, drawing insights from the social science fields of sociology, psychology, anthropology, political science and economics. To-day there is emerging a new science of organization analysis which is theoretically based on the findings from the social scientific fields. A study such as this illustrates the applicability of modern organization theory to a study of school organizations.

One of the implications coming out of this study relates to the divergence of opinion between teachers and

principals on the desirability of the bureaucratic dimensions.
The fact that teachers and principals held differing views on
the desirability of several dimensions raises the question as
to whether this divergence is functional or dysfunctional
from an organizational view-point. If consensus is desired,
it becomes important that principals involve teachers in the
planning of organizational structures and practices. On the
other hand, the fact that teachers and principals do not agree
on what is a desirable level of bureaucratization in schools
may be very functional for the organization.

Finally, there is evidence from both the pilot study
and the major sample that teacher professionalism is related
to the type of professional preparatory programs teachers
undergo. This finding has considerable significance for all
those involved in teacher education.

V. CONCLUDING STATEMENT

In assessing the value of this study as a contribution
to knowledge in the field of educational administration, sev-
eral points should be noted. First of all, the study has
provided researchers with two refined instruments that should
be useful in future research on professionalism and bureaucra-
cy in school organizations.

Secondly, the study makes two important theoretical con-
tributions to the fund of knowledge in organization theory.

It was demonstrated that schools exhibit a definite bureau-
cratic patterning which is not congruent with the classical
bureaucratic model. It was also discovered that there are
differences in staff professionalism between schools. Both
these findings point the way to the usefulness of further
research in the analysis of professionalism and bureaucracy
in school organizations.

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APPENDICES

APPENDIX A

PROFESSIONAL ROLE ORIENTATION

SCALE

PROFESSIONAL ROLE ORIENTATION SCALE*

1. It should be permissible for the teacher to violate a rule if he/she is sure that the best interests of the student will be served in doing so.

2. Unless she is satisfied that it is best for the student, a teacher should not do anything which she is told to do.

3. A good teacher should not do anything he believes may jeopardize the interests of his students regardless of who tells him to or what the rule states.

4. Teachers should try to live up to what they think are the standards of their profession even if the administration or the community does not seem to respect them.

5. One primary criterion of a good school should be the degree of respect that it commands from other teachers around the state.

6. A teacher should try to put her standards and ideals of good teaching into practice even if the rules or procedures of the school prohibit it.

7. Teachers should subscribe to and diligently read the standard professional journals.

8. A teacher should be an active member of at least one professional teaching association, and attend most conferences and meetings of the association.

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*The "sub-scales" or "indices" of this instrument are as follows:

Items 1 - 3 - Teacher-client orientation

Items 4 - 9 - Orientation to the profession and professional colleagues.

Items 10 - 13 = Competence based on monopoly of knowledge.

Items 14 - 16 - Decision-making authority and control over work.

9. A teacher should consistently practice his/her ideas of the best educational practices even though the administration prefers other views.

10. The major skill which a teacher should develop is his/her acquaintance with the subject matter.

11. Teachers should be evaluated primarily on the basis of their knowledge of the subject that they teach and on the basis of their ability to communicate it.

12. School should hire no one to teach unless he holds at least a 4 year bachelor's degree.

13. In view of the teacher shortage, it should be permissible to hire teachers trained at non-accredited colleges.

14. A teacher should be able to make his own decisions about problems that come up in the classroom.

15. Small matters should not have to be referred to some one higher up for a final answer.

16. The ultimate authority over the major educational decisions should be exercised by professional teachers.

APPENDIX B

ORGANIZATIONAL INVENTORY

ORGANIZATIONAL INVENTORY

We would like to find out some things about your school organization. This questionnaire consists of a number of statements about organizations. For each statement please indicate how well the statement describes your own school.

There are five possible answers for each statement. The are: Definitely True (DT), Partially True (PT), Undecided (U), Partially False (PF), and Definitely False (DF). For each statement circle the answer which you feel comes closest to describing your own organization.

Individual respondents will not be identified in any way, so do not hesitate to give your true judgement on each statement.

Scale

I.   1.   I feel that I am my own boss in most matters.

I.   2.   A person can make his own decisions without check-ing with anyone else.

II. 3.   Standardized classroom methods and procedures are used by all staff-members.

III. 4.   The school has a manual of rules and regulations to be followed.

IV. 5.   Whatever situation arises, we have procedures to follow in dealing with it.

V.   6.   Every person who calls the organization from the outside is treated the same.

VI. 7. In order to get a promotion, you have to "know somebody."

I. 8. No one can get necessary supplies without permission from the principal or vice-principal.

II. 9. The instructional program is departmentalized into specific subject areas with specific teachers assigned.

III. 10. Written orders from higher up are followed unquestioningly.

IV. 11. Teachers are often left to their own judgement as to how to handle various problems.

V. 12. People who have contact with parents and other citizens are instructed in proper procedures for greeting and talking with them.

VI. 13. Staff members must possess above-average qualifications before they are hired in this school.

I. 14. Each staff member is responsible to an administrator, to whom he (she) regularly reports.

II. 15. When an unusual problem arises the teacher must refer the matter to a definite person within the school organization.

III. 16. The teachers are constantly being checked upon for rule violations.

IV. 17. Most of us are encouraged to use our own judgement.

V. 18. The administration does not encourage staff parties.

VI. 19. Promotions are based entirely on how well a person does his job.

I. 20. There can be little action until an administrator approves a decision.

II. 21. One thing teachers like in this school is the variety of work.

III. 22. Teachers are not expected to leave their classrooms without permission.

IV. 23. The same procdures are to be followed in most situations.

V. 24. A lot of the staff members in this school get to-gether over weekends.

VI. 25. Teachers are periodically evaluated to see how well they are doing.

I. 26. How things are done in the classroom is left pretty much up to the individual teacher.

II. 27. We are expected to teach in more than one subject area.

III. 28. The time for informal get-togethers during the school day is strictly regulated.

IV. 29. The use of wide variety of teaching methods and materials is encouraged in this school.

V. 30. The organization is always sponsoring employee get-togethers.

VI. 31. People aren't promoted simply because they have "pull."

I. 32. Staff members of this school always get their orders from higher up.

II. 33. Most jobs in the school have something new happening every day.

III. 34. Nothing is said if you get to school just before roll call or leave right after dismissal occasion-ally.

IV. 35. Red tape isn't often a problem in getting a job done.

V. 36. The administrators in this school stick pretty much to themselves.

VI. 37. Past teaching experience plays a large part in the assignment of a teacher to this school.

I. 38. Any decision I make has to have my superior's approval.

II. 39. People teaching in this school usually find their jobs to be very monotonous.

III. 40. Most teachers in this school make their own rules for classroom management.

IV. 41. Going through the proper channels is constantly stressed.

V. 42. We are encouraged to become very friendly with groups and individuals outside the school.

VI. 43. A record of every staff member's job performance is kept.

I. 44. A person who wants to make his own decisions would quickly become discouraged in this school.

II. 45. Few people here find their work challenging.

III. 46. Staff members feel as though they are constantly being watched to see that they obey all the rules.

IV. 47. We are to follow strict operating procedures at all times.

V. 48. We are expected to be courteous, but reserved, at all times.

VI. 49. Many people are hired simply because they have attractive personalities.

I. 50. Even small matters have to be referred to someone higher up for a final answer.

II. 51. We usually work under the same circumstances from day to day.

III. 52. There is no handbook of rules and regulations for this school.

IV. 53. Whenever we have a problem, we are supposed to go to the same person for an answer.

V. 54. No matter how special a pupil's or parent's problem appears to be, he is to be treated the same way as anyone else.

VI. 55. Promotions are based on how well you are liked.

I. 56. Staff members here are allowed to do almost as they please.

II. 57. Teaching in this school involves a variety of tasks and responsibilities from day to day.

III. 58. Smoking by staff members is permitted only in certain designated places.

IV. 59. There is only one way to do the job - the Principal's way.

V. 60. People are to be treated within the rules, no matter how serious a problem they may have.

VI. 61. There isn't much chance for a promotion unless you are "in" with the administration.

I. 62. I have to ask the principal before I do almost anything.

The following six items (63-68) ask for your personal opinion concerning an ideal or "good" school.

I. 63. A good school will have well-defined differences between teachers and administrators insofar as authority and status are concerned.

II. 64. A good school will have each of its staff members assigned to the teaching of one or two specialized subjects based upon their specialized training and experience.

III. 65. A good school will have a system of written rules designed to cover most situations.

IV. 66. A good school will have a well-defined system of standard procedures for the guidance of staff members in their classroom teaching and other school work.

V. 67. A good school will operate on the basis that every person in the organization (administrators, teachers, pupils, and parents) is to receive exactly the same kind of treatment, and that no personal feelings should have an effect on working relationships between teachers and administrators.

VI. 68. A good school appoints and promotes staff members on the basis of professional competence.

APPENDIX C

SCHOOL ORGANIZATION CHARACTERISTICS

AND TEACHERS' ROLE ATTITUDES SURVEY

QUESTIONNAIRE

(Pilot Study)

SCHOOL ORGANIZATION CHARACTERISTICS AND TEACHERS'
ROLE ATTITUDES SURVEY

To all Teachers and Administrators:

At the present time I am a Ph. D. candidate in the Department of Educational Administration at the University of Alberta. For my thesis I am investigating certain organizational characteristics of schools and teachers' attitudes towards their role in schools. The major part of this study will be done in British Columbia schools but as a preliminary phase I would like to do a pilot study in a small sample of Alberta schools for the purpose of validating the instruments to be used.

This study has received the approval of the Department of Educational Administration and in addition has the support of the Alberta Teachers' Association. To aid me in this research I would like to have your co-operation in completing the instruments to be used. All information given on the questionnaire will be held in strictest confidence. Please place the completed questionnaire in the envelope provided and return it sealed to the staff member designated to receive the envelopes and that person will forward all envelopes from your school to me.

I would be very grateful if you would find the time to complete the questionnaire within the next few days. May I extend my thanks in anticipation of your co-operation.

Sincerely yours,

Norman Robinson

SECTION A: PERSONAL DATA

This section requests certain personal data. It is for completion by all teachers and administrators. Check the response to each item which provides the correct information about you.

1. Sex
   1. ____ Male
   2. ____ Female

2. Marital Status
   1. ____ Single
   2. ____ Married
   3. ____ Member of a religious order
   4. ____ Other

3. Present Position
   1. _____ Regular classroom teacher
   2. _____ Department head teaching more than half-time
   3. _____ Department head teaching half-time or less
   4. _____ Vice-principal teaching more than half-time
   5. _____ Vice-principal teaching less than half-time
   6. _____ Principal teaching more than half-time
   7. _____ Principal teaching less than half-time
   8. _____ Other: (Specify)
      _____

4. Academic and Professional Preparation
   1. _____ Letter of Authority
   2. _____ Grade 11 plus one year Normal School
   3. _____ Grade 12 plus one year Normal School
   4. _____ Grade 12 plus one year in the Faculty of Education
   5. _____ Grade 12 plus two years in the Faculty of Education (Elementary Program)
   6. _____ Grade 12 plus two years in the Faculty of Education (Secondary Program)
   7. _____ Arts or Science degree plus one year teacher education
   8. _____ Bachelor of Education degree
   9. _____ Arts or Science degree plus Bachelor of Education degree
   10. _____ Master of Education degree
   11. _____ Other: (Specify)
       _____

5. Teaching Level (Primary Responsibility)
   1. _____ Primary Grades
   2. _____ Intermediate Grades
   3. _____ Junior High Grades
   4. _____ Senior High Grades

6. Total Years of Teaching Experience (Include Administrative Experience and count this present year as a full year)
   1. _____ 1 year
   2. _____ 2 years
   3. _____ 3 years
   4. _____ 4 years
   5. _____ 5 years
   6. _____ 6 years to 15 years
   7. _____ 16 years to 25 years
   8. _____ 26 or more years

7. Number of years in this present school (Count
   the present year as a full year)
   1.____1 year
   2.____2 years
   3.____3 years
   4.____4 years
   5.____5 years
   6.____6 years to 15 years
   7.____16 years to 25 years
   8.____26 or more years

SECTION B: ROLE ATTITUDES OF TEACHERS

The following section is designed to measure tea-
chers' attitudes to their role in their school. All teachers
are to reply to this section and in addition all administra-
tors are asked for their opinions on what they feel the tea-
cher's role in the school should be.

There are five possible answers to each statement.
They are:

STRONGLY AGREE   (SA)
AGREE   (A)
UNDECIDED   (U)
DISAGREE   (D)
STRONGLY DISAGREE(SD)

For each statement circle the answer which indicates your
attitude towards the statement.

1. It should be permissible for the teacher
   to violate a rule if it is felt that the
   best interests of the student will be
   served in doing so.   SA A U D SD

2. Unless a teacher is satisfied that it is
   best for the student, a teacher should
   not do anything which the teacher is told
   to do.   SA A U D SD

3. A good teacher should not do anything that
   may jeopardize the interests of the teach-
   er's students regardless of who gives the
   directive or what the rule states.   SA A U D SD

4. Teachers should try to live up to what they
   think are the standards of the profession
   even if the administration or the commun-
   ity does not seem to respect them.   SA A U D SD

5. One primary criterion of a good school
should be the degree of respect that it
commands from other teachers around the
province. SA A U D SD

6. A teacher should try to put the standards
and ideals of good teaching into practice
even if the rules or procedures of the
school prohibit it. SA A U D SD

7. Teachers should subscribe to and read
diligently the standard professional
journals. SA A U D SD

8. A teacher should be an active member
of at least one specialist council. SA A U D SD

9. A teacher should attend all local
association meetings. SA A U D SD

10. A teacher should consistently practise
ideas of the best educational practices
even though the administration prefers
other views. SA A U D SD

11. The major skill which a teacher should
develop is an acquaintance with the
subject matter. SA A U D SD

12. Teachers should be evaluated primarily
on the basis of their knowledge of the
subject that they teach and on the basis
of their ability to communicate it. SA A U D SD

13. Schools should hire no one to teach unless
he holds at least a bachelor's degree in
education. SA A U D SD

14. In view of the teacher shortage, it should
be permissible to hire teachers with let-
ters of authority. SA A U D SD

15. Teachers should be able to make their own
decisions about problems that come up in
the classroom. SA A U D SD

16. Small matters should not have to be refer-
red to someone higher up for a final
answer. SA A U D SD

17. The ultimate authority over the major
educational decisions should be exer-
cised by qualified teachers.   SA   A   U   D   SD

SECTION C: SCHOOL ORGANIZATION CHARACTERISTICS

In this section all teachers and administrators are
asked to indicate how well each statement describes their
own school.

There are five possible answers for each statement.
They are:

        ALWAYS TRUE   (AT)
        OFTEN TRUE   (OFT)
        OCCASIONALLY TRUE (OCT)
        SELDOM TRUE   (ST)
        NEVER TRUE   (NT)

For each statement circle the answer which you feel comes
closest to describing your own school organization.

1. I feel that I am my own boss in most
   matters.   AT   OFT   OCT   ST   NT

2. A person can make his own decisions
   without checking with anyone else.   AT   OFT   OCT   ST   NT

3. Teachers are required to sponsor
   extra-curricular activities for which
   they have no suitable background.   AT   OFT   OCT   ST   NT

4. The school has a manual of rules and
   regulations for teachers to follow.   AT   OFT   OCT   ST   NT

5. Whatever situation arises, we have
   procedures to follow in dealing with
   it.   AT   OFT   OCT   ST   NT

6. Every person who calls the school
   from the outside is treated the same.   AT   OFT   OCT   ST   NT

7. In order to get a promotion, you have
   to "know somebody."   AT   OFT   OCT   ST   NT

8. No one can get necessary supplies
   without permission from the princi-
   pal or vice-principal.   AT   OFT   OCT   ST   NT

9. The instructional program is depart-
mentalized into specific subject areas
with specific teachers assigned. AT OFT OCT ST NT

10. Written orders from higher up are
followed unquestioningly. AT OFT OCT ST NT

11. Teachers are often left to their
own judgement as to how to handle
various problems. AT OFT OCT ST NT

12. People who have contact with parents
and other citizens are instructed in
proper procedures for greeting and
talking with them. AT OFT OCT ST NT

13. Staff members must possess above-
average qualifications before they
are placed in this school. AT OFT OCT ST NT

14. Each staff member is responsible to
an administrator to whom the member
regularly reports. AT OFT OCT ST NT

15. Teachers are assigned to teach sub-
ject or grade levels for which
they have no special training. AT OFT OCT ST NT

16. The teachers are constantly being
checked for rule violations AT OFT OCT ST NT

17. Most of us are encouraged to use
our own judgement. AT OFT OCT ST NT

18. In dealing with student behaviour
problems the school has standard
punishments for standard offenses
regardless of the individual in-
volved. AT OFT OCT ST NT

19. Promotions are based entirely on
how well a person does his job. AT OFT OCT ST NT

20. There can be little action until
an administrator approves a decision. AT OFT OCT ST NT

21. Teachers are required to handle
students' problems dealing with
choice of courses. AT OFT OCT ST NT

22. Teachers are expected not to leave
their classrooms without permission. AT OFT OCT ST NT

23. The same procedures are to be follow-
ed in most situations.   AT   OFT   OCT   ST   NT

24. In dealing with student discipline
problems teachers are encouraged to
consider the individual offender,
not the offense, in deciding on a
suitable punishment.   AT   OFT   OCT   ST   NT

25. Promotion is not based on personal
preferences of the selectors, but on
an objective evaluation of teacher
capabilities.   AT   OFT   OCT   ST   NT

26. How things are done in the classroom
is left pretty much up to the indivi-
dual teacher.   AT   OFT   OCT   ST   NT

27. Teachers usually teach in more than
one subject area or grade level.   AT   OFT   OCT   ST   NT

28. The time for informal staff get-
togethers during the school day is
strictly regulated.   AT   OFT   OCT   ST   NT

29. The use of a wide variety of teach-
ing methods and materials is encourag-
ed in this school.   AT   OFT   OCT   ST   NT

30. The organization sponsors employee
get-togethers.   AT   OFT   OCT   ST   NT

31. People aren't promoted simply be-
cause they have "pull."   AT   OFT   OCT   ST   NT

32. Staff members of this school always
get their orders from higher up.   AT   OFT   OCT   ST   NT

33. Teachers have to do their own typing
of stencils for classroom use.   AT   OFT   OCT   ST   NT

34. Nothing is said if you get to school
just before roll call or leave right
after dismissal occasionally.   AT   OFT   OCT   ST   NT

35. Red tape isn't often a problem in
getting a job done.   AT   OFT   OCT   ST   NT

36. The administrators in this school
stick pretty much to themselves.   AT   OFT   OCT   ST   NT

37. Past teaching experience plays a large part in the assignment of a teacher to this school.　　AT　OFT　OCT　ST　NT

38. Any decision I make has to have my superior's approval.　　AT　OFT　OCT　ST　NT

39. We have to do a lot of paper work which could be done by the office staff.　　AT　OFT　OCT　ST　NT

40. Most teachers in this school make their own rules for classroom management.　　AT　OFT　OCT　ST　NT

41. Going through proper channels is constantly stressed.　　AT　OFT　OCT　ST　NT

42. Teachers are encouraged to become very friendly with groups and individuals outside the school.　　AT　OFT　OCT　ST　NT

43. Teachers are promoted for reasons other than demonstrating professional ability.　　AT　OFT　OCT　ST　NT

44. A person who wants to make his own decisions would quickly become discouraged in this school.　　AT　OFT　OCT　ST　NT

45. Assignments of teaching duties is made without regard for the teacher's experience or training.　　AT　OFT　OCT　ST　NT

46. Staff members feel as though they are constantly being watched to see that they obey all the rules.　　AT　OFT　OCT　ST　NT

47. We are to follow strict operating procedures at all times.　　AT　OFT　OCT　ST　NT

48. We are expected to be courteous, but reserved, at all times in our dealings with parents.　　AT　OFT　OCT　ST　NT

49. Many people are hired simply because they have attractive personalities.　　AT　OFT　OCT　ST　NT

50. Even small matters have to be referred to someone higher up for a final answer.　　AT　OFT　OCT　ST　NT

51. Teachers in this school receive help
from the custodial staff in setting
up audio-visual equipment for class-
room use.   AT OFT OCT ST NT

52. The teacher is expected to abide by
the spirit of the rules of the school
rather than stick to the letter of
the rules.   AT OFT OCT ST NT

53. Whenever we have a problem, we are
supposed to go to the same person
for an answer.   AT OFT OCT ST NT

54. No matter how special a pupil's
or parent's problem appears to be,
he is treated the same way as any-
one else.   AT OFT OCT ST NT

55. Promotions are based on how well
you are liked.   AT OFT OCT ST NT

56. Staff members are allowed to do
almost as they please in their
classroom work.   AT OFT OCT ST NT

57. There is confusion and overlap in
the job responsibilities of the
principal and vice-principal.   AT OFT OCT ST NT

58. Rules stating when teachers arrive
and depart from the building are
strictly enforced.   AT OFT OCT ST NT

59. There is only one way to do the job-
the principal's way.   AT OFT OCT ST NT

60. People are treated within the rules,
no matter how serious a problem they
have.   AT OFT OCT ST NT

61. There isn't much chance for a promo-
tion unless you are "in" with the
administration.   AT OFT OCT ST NT

62. I have to ask the principal before
I do almost anything.   AT OFT OCT ST NT

THANK YOU FOR YOUR CO-OPERATION

Please place the completed questionnaire in the
envelope provided and seal it. Return it to the
person designated to collect the envelopes.

APPENDIX D

SCHOOL ORGANIZATIONAL CHARACTERISTICS

AND

TEACHERS' ROLE ATTITUDES SURVEY

QUESTIONNAIRE

(Final Version)

School Organizational Characteristics

and

Teachers' Role Attitudes Survey

TO ALL TEACHERS AND ADMINISTRATORS

At the present time I am a British Columbia principal on leave of absence doing graduate work in the Department of Educational Administration at the University of Alberta. For my thesis I am investigating certain organizational characteristics of schools and teachers' and administrators' attitudes towards the role of the teacher in schools.

For the purposes of this study a random selection of British Columbia schools was made. Your school was one of the schools chosen. To assist me in this research I would like your co-operation in completing the following questionnaire. All information given will be held in the strictest confidence.

Please place the completed questionnaire in the envelope provided and return it sealed to the staff member designated to receive the envelopes and that person will forward all envelopes from your school to me.

I would be very grateful if you would find the time to complete the questionnaire within the next few days. May I extend my thanks in anticipation of your co-operation.

Sincerely yours,

NORMAN ROBINSON

Note:

A.—All TEACHERS are requested to complete the following sections:
    (1)—Personal Data
    (2)—Role Attitudes of Teachers
    (3)—Teacher-Principal Relationships
    (4)—School Organizational Inventory

B.—All PRINCIPALS are requested to complete the following sections:
    (1)—Personal Data
    (2)—Role Attitudes of Teachers
    (3)—Data on School Size and Type
    (4)—School Organizational Inventory

This section requests certain personal data. It is for completion by all **teachers** and **administrators.** Check in the square provided the response to each item which provides the correct information about you.

— 2 —

1.—Sex

☐ 1.—Male

☐ 2.—Female

2.—Marital Status

☐ 1.—Single

☐ 2.—Married

☐ 3.—Other

3.—Present Position

☐ 1.—Regular classroom teacher

☐ 2.—Department head teaching more than half-time

☐ 3.—Department head teaching half-time or less

☐ 4.—Vice-principal teaching more than half-time

☐ 5.—Vice-principal teaching less than half-time

☐ 6.—Principal teaching more than half-time

☐ 7.—Principal teaching less than half-time

☐ 8.—Other: (Specify) _____

4.—Academic and Professional Training

☐ 1.—I do not hold a university degree

☐ 2.—B.Ed. (Elementary)

☐ 3.—B.Ed. (Secondary)

☐ 4.—Bachelor's degree in a faculty other than education plus one year teacher training

☐ 5.—Bachelor's degree in a faculty other than education plus old (postgraduate) B.Ed.

☐ 6—Master of Education Degree

☐ 7.—Other (please specify) _____

5.—Teaching Level (Primary Responsibility)

☐ 1.—Primary Grades

☐ 4.—Senior Secondary Grades

☐ 2.—Intermediate Grades

☐ 3.—Junior Secondary Grades

6.—Total Years of Teaching Experience.

(Include Administrative Experience and count this present year as a full year)

☐ 1.—1 year

☐ 2.—2 years

☐ 3.—3 years

☐ 4.—4 years

☐ 5.—5 years

☐ 6.—6 years to 15 years

☐ 7.—16 to 25 years

☐ 8.—26 or more years

7.—Number of years in this present school.

(Count the present year as a full year)

☐ 1.—1 year

☐ 2.—2 years

☐ 3.—3 years

☐ 4.—4 years

☐ 5.—5 years

☐ 6.—6 years to 15 years

☐ 7.—16 to 25 years

☐ 8.—26 or more years

The following section is designed to measure teachers' attitudes to their role in their school. All **teachers** are to reply to this section and in addition all **administrators** are asked for their opinions on what they feel the teacher's role in the school should be.

There are five possible answers to each statement. They are:

Strongly Agree (SA)   **Disagree (D)**

Agree (A   **Undecided (U)**   **Strongly Disagree (SD)**

For each statement circle the answer which indicates your attitude towards the statement.

8.—It should be permissible for the teacher to violate a rule if it is felt that the best interests of the student will be served in doing so.   SA   A   U   D   SD

9.—Unless a teacher is satisfied that it is best for the student, a teacher should not do anything which the teacher is told to do.   SA   A   U   D   SD

10.—A good teacher should not do anything that may jeopardize the interests of the teacher's students regardless of who gives the directive or what the rule states.   SA   A   U   D   SD

11.—Teachers should try to live up to what they think are the standards of the profession even if the administration or the community does not seem to respect them.   SA   A   U   D   SD

12.—In view of the teacher shortage, it should be permissible to hire teachers with letters of permission.   SA   A   U   D   SD

13.—A teacher should try to put the standards and ideals of good teaching into practice even if the rules or procedures of the school discourage it.   SA   A   U   D   SD

14.—Teachers should subscribe to and read diligently the standard professional journals.   SA   A   U   D   SD

15.—A teacher should be an active member of at least one specialist association.   SA   A   U   D   SD

16.—A teacher should attend all local association meetings.   SA   A   U   D   SD

17.—A teacher should consistently practise ideas of the best educational practices even though the administration prefers other views.   SA   A   U   D   SD

18.—The major skill which a teacher should develop is an acquaintance with the subject matter.   SA   A   U   D   SD

19.—Teachers should be evaluated primarily on the basis of their knowledge of the subject that they teach and on the basis of their ability to communicate it.   SA   A   U   D   SD

20.—Schools should hire no one to teach unless the person holds at least a bachelor's degree in education.   SA   A   U   D   SD

21.—One primary criterion of a good school should be the degree of respect that it commands from other teachers around the province.   SA   A   U   D   SD

22.—Teachers should be able to make their own decisions about problems that come up in the classroom.   SA   A   U   D   SD

23.—The ultimate authority over the major educational decisions should be exercised by qualified teachers.   SA   A   U   D   SD

THIS SECTION IS TO BE COMPLETED BY **TEACHERS ONLY**

The following is a list of statements (24—29) that may be used to describe the behaviour of your principal. Each statement describes a special kind of behaviour, but does not ask you to judge whether the behaviour is desirable or undesirable. It simply asks you to describe, as accurately as you can, the behaviour of your principal.

There are five possible answers for each statement. They are:

Always True (AT)   **Seldom True (ST)**

Often True (OFT)   **Ocasionally True (OCT)**   **Never True (NT)**

For each statement circle the answer which you feel comes closest to describing the behaviour of your principal.

24.—The principal allows the staff complete freedom in their work.   AT   OFT   OCT   ST   NT

25.—The principal gives advice to teachers on their classroom work only when they request it.   AT   OFT   OCT   ST   NT

26.—The principal permits staff members to use their own judgment in solving problems.   AT   OFT   OCT   ST   NT

27.—Staff members can reject the advice of the principal regarding their classroom work without gaining his disapproval.   AT   OFT   OCT   ST   NT

28.—The principal encourages initiative in his staff members.   AT   OFT   OCT   ST   NT

29.—When the principal assigns a task, he lets the staff members handle it in the way they think it should be done.   AT   OFT   OCT   ST   NT

DATA ON SCHOOL SIZE AND TYPE

THIS SECTION IS TO BE COMPLETED BY **PRINCIPALS ONLY**

This section requests certain data on your school. Please check in the square provided the response to each item which provides the correct information about your school.

30.—Type of school

☐ 1.—Elementary

☐ 2.—Elementary-Junior Secondary

☐ 3.—Elementary-Secondary

☐ 4.—Junior Secondary

☐ 5.—Junior-Senior Secondary

☐ 6.—Senior Secondary

31.—Number of full-time staff (include both teachers and administrators)

☐ 1.— 1 — 10

☐ 2.—11 — 20

☐ 3.—21 — 30

☐ 4.—31 — 40

☐ 5.—41 — 50

☐ 6.—51 — 60

☐ 7.—Over 60

76, 77 ___ _____

78, 79 _____   DO NOT WRITE IN THIS SPACE. THIS SPACE IS RESERVED

80 _____   FOR COMPUTER ANALYSIS.

School Organizational

Inventory

DEVELOPED BY

D. A. MacKAY

and

NORMAN ROBINSON

Directions:

In this Questionnaire all teachers and administrators are asked to indicate how well each statement describes the organizational characteristics of their own school.

There are five possible answers for each statement. They are:

Always True (AT)

Often True (OFT)
Ocasionally True (OCT)
Seldom True (ST)
Never True (NT)

For each statement circle the answer which you feel comes closest to describing your own school organization.

1.—A person who wants to make his own decisions would quickly become discouraged in this school.	AT	OFT	OCT	ST	NT
2.—There is an overlap in the job responsibilities of the Principal and Vice-Principal.	AT	OFT	OCT	ST	NT
3.—Rules stating when teachers arrive and depart from the building are strictly enforced.	AT	OFT	OCT	ST	NT
4.—The use of a wide variety of teaching methods and materials is encouraged in this school.	AT	OFT	OCT	ST	NT
5.—We are expected to be courteous, but reserved, at all times in our dealings with parents.	AT	OFT	OCT	ST	NT
6.—Promotions are based on how well you are liked.	AT	OFT	OCT	ST	NT
7.—Staff members of this school always get their orders from higher up.	AT	OFT	OCT	ST	NT
8.—Teachers are required to sponsor extra-curricular activities for which they have no suitable background.	AT	OFT	OCT	ST	NT
9.—The time for informal staff get-togethers during the school day is strictly regulated by the administration.	AT	OFT	OCT	ST	NT
10.—In dealing with student discipline problems teachers are encouraged to consider the individual offender, not the offense, in deciding on a suitable punishment.	AT	OFT	OCT	ST	NT
11.—Staff members must possess above-average qualifications before they are placed in this school.	AT	OFT	OCT	ST	NT
12.—Staf members are allowed to do almost as they please in their classroom work.	AT	OFT	OCT	ST	NT
13.—Teachers in this school receive help from the custodial staff in setting up audio-visual equipment for classroom use.	AT	OFT	OCT	ST	NT
14.—The teacher is expected to abide by the spirit of the rules of the school rather than stick to the letter of the rules.	AT	OFT	OCT	ST	NT
15.—We are to follow strict operating procedures at all times.	AT	OFT	OCT	ST	NT
16.—The administration sponsors staff get-togethers.	AT	OFT	OCT	ST	NT
17.—Promotion is **not** based on personal preferences of the selectors, but on an objective evaluation of teacher capabilities.	AT	OFT	OCT	ST	NT
18.—Nothing is said if you get to school just before roll call or leave right after dismissal occasionally.	AT	OFT	OCT	ST	NT
19.—Going through proper channels is constantly stressed.	AT	OFT	OCT	ST	NT
20.—Teachers are encouraged to become friendly with groups and individuals outside the school.	AT	OFT	OCT	ST	NT
21.—Past teaching experience plays a large part in the assignment of a teacher to this school.	AT	OFT	OCT	ST	NT

22.—Teachers have to do their own typing of stencils for class-room use.   AT   OFT   OCT   ST   NT

23.—There can be little action until an administrator approves a decision.   AT   OFT   OCT   ST   NT

24.—Assignment of teaching duties is made without regard for the teacher's experience or training.   AT   OFT   OCT   ST   NT

25.—The teachers are constantly being checked for rule violations.   AT   OFT   OCT   ST   NT

26.—There isn't much chance for a promotion unless you are "in" with the administration.   AT   OFT   OCT   ST   NT

27.—Teachers who have contact with parents and other citizens are instructed in proper procedures for greeting and talking with them.   AT   OFT   OCT   ST   NT

28.—Many teachers are hired simply because they have attractive personalities.   AT   OFT   OCT   ST   NT

29.—The school has a manual of rules and regulations for teachers to follow.   AT   OFT   OCT   ST   NT

30.—We have to do a lot of paper work which could be done by the school office staff.   AT   OFT   OCT   ST   NT

31.—Each staff member is responsible to an administrator to whom the member regularly reports.   AT   OFT   OCT   ST   NT

32.—In order to get a promotion, you have to "know somebody."   AT   OFT   OCT   ST   NT

33.—The instructional program is departmentalized into specific subject areas with specific teachers assigned.   AT   OFT   OCT   ST   NT

34.—A person can make his own decisions without checking with anyone else.   AT   OFT   OCT   ST   NT

35.—There is only one way to do the job — the Principal's way.   AT   OFT   OCT   ST   NT

36.—In dealing with student behaviour problems the school has standard punishments for standard offenses regardless of the individual involved.   AT   OFT   OCT   ST   NT

37.—Promotions are based entirely on how well a person does his job.   AT   OFT   OCT   ST   NT

38.—I have to ask the principal before I do almost anything   AT   OFT   OCT   ST   NT

39.—No one can get necessary supplies without permission from the principal or vice-principal.   AT   OFT   OCT   ST   NT

40.—Written orders from higher up are followed unquestioningly.   AT   OFT   OCT   ST   NT

41.—The same procedures are to be followed in most situations.   AT   OFT   OCT   ST   NT

42.—Students are treated within the rules of the school, no matter how serious a problem they have.   AT   OFT   OCT   ST   NT

43.—Even small matters have to be referred to someone higher up for a final answer.   AT   OFT   OCT   ST   NT

44.—Teachers are expected not to leave their classroom without permission.   AT   OFT   OCT   ST   NT

45.—Whenever we have a problem, we are supposed to go to the same person for an answer.   AT   OFT   OCT   ST   NT

46.—No matter how special a pupil's or parent's problem appears to be, the person is treated the same way as anyone else.   AT   OFT   OCT   ST   NT

47.—Any decision I make has to have my superior's approval.   AT   OFT   OCT   ST   NT

48.—Red tape is often a problem in getting a job done in this school.   AT   OFT   OCT   ST   NT

The following six items (49-54) ask your **personal opinion** concerning an ideal or "good school. All teachers and principals are asked to give their opinions.

There are five possible answers to each statement. They are:

Strongly Agree (SA)   Disagree (D)
Agree (A)   Undecided (U)   Strongly Disagree (SD)

For each statement circle the answer which indicates your attitude towards the statement.

49.—A good school will have well-defined differences between teachers and administrators insofar as authority and status are concerned.   SA   A   U   D   SD

50.—A good secondary school will have each of its staff members assigned to the teaching of one or two specialized subjects based upon their specialized training and experience; and a good elementary school will have each of its staff members assigned to teaching in a particular grade level (primary or intermediate) based upon their specialized training and experience.   SA   A   U   D   SD

51.—A good school will have a system of written rules for teachers designed to cover most situations.   SA   A   U   D   SD

52.—A good school will have a well-defined system of standard procedures for the guidance of staff members in their clasroom teaching and other school work.   SA   A   U   D   SD

53.—A good school will operate on the basis that every person in the organization (administrators, teachers, pupils, and parents) is to receive exactly the same kind of treatment, and that no personal feelings should have an effect on working relationships between teachers, administrators, students and parents.   SA   A   U   D   SD

54.—A good school appoints and promotes staff members on the basis of professional competence.   SA   A   U   D   SD

76, 77 _____
78, 79 _____ DO NOT WRITE IN THIS SPACE. THIS SPACE IS RESERVED FOR
80 _____   COMPUTER ANALYSIS.

APPENDIX E

SUMMARY OF SCHOOL

DATA

SUMMARY OF SCHOOL DATA

School No.	School Type	No. On Staff	Staff Prof. Score	Princ. Prof. Score	Observed Bureaucratic Scores					
					I	II	III	IV	V	VI
1	JS	30	54.42	55	21.62	27.85	21.12	15.85	20.31	28.35
2	E	11	53.78	56	30.44	19.33	21.00	22.76	23.89	28.22
3	E	20	55.61	57	25.06	22.89	16.61	18.44	21.11	28.83
4	E	18	59.00	68	18.53	22.94	12.18	12.29	20.47	28.88
5	E	16	56.70	55	23.30	22.70	22.00	15.40	22.90	27.80
6	ES	28	54.39	61	20.89	23.61	15.22	16.00	21.61	29.11
7	E	21	57.06	55	19.00	22.28	19.50	15.28	20.50	28.44
8	E	13	57.55	50	23.73	28.00	18.36	17.82	24.91	28.73
9	EJS	28	54.53	61	21.47	22.71	15.24	15.35	20.06	30.82
10	E	20	57.42	52	18.67	24.17	16.92	14.75	20.58	29.17
11	E	29	57.87	53	25.83	19.65	20.96	18.26	22.04	26.13
12	E	13	53.90	48	23.00	17.90	18.00	17.20	21.90	23.10
13	E	19	56.06	63	30.71	23.18	22.29	19.77	23.53	27.29
14	JS	17	58.47	45	20.93	23.07	19.53	15.60	21.53	31.33
15	E	10	54.44	56	24.78	23.44	19.33	16.56	22.22	27.22
16	E	14	57.89	62	21.89	23.67	17.44	13.89	20.00	30.44
17	E	20	55.75	47	23.69	21.50	18.00	16.31	20.75	29.69
18	JSS	36	55.89	55	21.89	24.29	17.86	16.03	21.31	30.46
19	SS	52	57.67	54	27.76	22.65	18.85	20.63	24.83	27.61
20	JSS	26	55.38	60	22.38	21.43	15.57	15.81	23.09	29.00
21	EJS	28	57.94	57	24.89	22.22	18.89	18.11	21.28	28.06

SUMMARY OF SCHOOL DATA - (continued)

School No.	School Type	No. On Staff	Staff Prof. Score	Princ.Prof. Score	Observed Bureaucratic Scores					
					I	II	III	IV	V	VI
22	E	20	57.23	54	19.85	19.23	17.85	15.46	21.00	28.23
23	ES	13	57.80	53	25.80	24.30	18.00	18.90	21.20	29.10
24	JS	19	58.69	57	24.92	22.46	18.69	19.15	23.54	29.39
25	SS.	30	58.60	58	23.05	21.95	18.25	16.50	23.65	26.10
26	JSS	14	57.92	53	23.50	21.25	19.58	17.00	20.33	26.25
27	E	15	54.92	51	19.42	20.83	19.42	15.08	19.00	30.42
28	E	22	55.13	67	27.13	20.13	23.75	19.56	21.44	28.00
29	E	21	55.82	21	20.47	21.82	13.65	14.41	19.94	30.00
Grand Mean		21.48	56.62	55.62	23.26	22.53	18.42	17.00	22.06	29.54

School Type Key:

E   - Elementary

EJS - Elementary-Junior Secondary

ES - Elementary-Secondary

JS - Junior Secondary

JSS - Junior-Senior Secondary

SS - Senior Secondary